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ABSTRACT

Tips and techniques for teachers and coaches involved with women's volleyball and basketball competition are given. Off-season conditioning, safety on the court, and team morale are some of the issues considered. (Author/LH)

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Basketball
Volleyball

JULY 1979 — JULY 1981

TIPS and TECHNIQUES FOR TEACHERS and COACHES

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Basketball
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JULY 1979 — JULY 1981

Tips and Techniques
for Teachers and Coaches

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NATIONAL ASSOCIATION FOR GIRLS
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The only national association devoted exclusively to creating sport opportunities for *all* females — *all* ages, *all* levels

NATIONAL ASSOCIATION FOR GIRLS AND WOMEN IN SPORT

The National Association for Girls and Women in Sport is a nonprofit, educational organization designed to serve the needs of participants, teachers, coaches, leaders and administrators in sports programs for girls and women. It is one of seven associations of the American Alliance for Health, Physical Education, Recreation and Dance.

PURPOSE

The purpose of the National Association for Girls and Women in Sport is to foster the development of sports programs for the enrichment of the life of the participant.

BELIEFS

The National Association for Girls and Women in Sport believes that:

Sports are an integral part of the culture in which we live.

Sports programs are a part of the total educational experience of the participant when conducted in educational institutions.

Opportunities for instruction and participation in sports appropriate to her skill level should be included in the experience of every girl.

Sports skills and sports participation are valuable social and recreational tools which may be used to enrich the lives of women in our society.

Competition and cooperation may be demonstrated in all sports programs, although the type and intensity of the competition and cooperation will vary with the degree or level of skill of the participants.

An understanding of the relationship between competition and cooperation and the utilization of both within the accepted framework of our society is one of the desirable outcomes of sports participation.

Physical activity is important in the maintenance of the general health of the participant.

Participation in sports contributes to the development of self-confidence and to the establishment of desirable interpersonal relationships.

FUNCTIONS

The National Association for Girls and Women in Sport promotes desirable sports programs through:

1. Formulating and publicizing guiding principles and standards for the administrator, leader, official, and player.
2. Publishing and interpreting rules governing sports for girls and women.
3. Providing the means for training, evaluating, and rating officials.
4. Disseminating information on the conduct of girls' and women's sports.
5. Stimulating, evaluating, and disseminating research in the field of girls' and women's sports.
6. Cooperating with allied groups interested in girls' and women's sports in order to formulate policies and rules that affect the conduct of women's sports.
7. Providing opportunities for the development of leadership among girls and women for the conduct of their sports programs.

STANDARDS IN SPORTS FOR GIRLS AND WOMEN

Standards in sports activities for girls and women should be based upon the following:

1. Sports activities for girls and women should be taught, coached, and officiated by qualified women whenever and wherever possible.
2. Programs should provide every girl with a wide variety of activities.
3. The results of competition should be judged in terms of *benefits to the participants* rather than by the winning of championships or the athletic or commercial advantage to schools or organizations.

Health and Safety Standards for Players

Careful supervision of the health of all players must be provided by —

1. An examination by a qualified physician
2. Written permission by a qualified physician after serious illness or injury
3. Removal of players when they are injured or overfatigued or show signs of emotional instability
4. A healthful, safe and sanitary environment for sports activity
5. Limitation of competition to a geographical area which will permit players to return at reasonable hours; provision of safe transportation.

General Policies

1. Select the members of all teams so that they play against those of approximately the same ability and maturity.
2. Arrange the schedule of games and practices so as not to place demands on the team or player which would jeopardize the educational objectives of the comprehensive sports program.
3. Discourage any girl from practicing with, or playing with, a team for more than one group while competing in that sport during the same sport season.
4. Promote social events in connection with all forms of competition.

SOURCES OF INFORMATION AND SERVICE

All requests for information about services should be addressed to: Executive Director, National Association for Girls and Women in Sport (NAGWS), AAHPERD, 1201 - 16th Street, N.W., Washington, D.C. 20036.

Basketball

FOREWORD

The articles included in the basketball section of the *1979-81 NAGWS Basketball-Volleyball Guide: Tips and Techniques* are intended to meet the needs and interests of a great variety of readers.

The first article is an introduction to the psychology involved in coaching with examples specific to basketball. We all know about "psyching up"; Linda Bunker makes us aware of how we may be "psyching out."

Christine Howe's article describes a unique intramural basketball activity that is appropriate for both high school and college.

Few of us know enough about working with the media, a deficiency that Ann Penstone's article should help alleviate.

Most coaches feel sincere concern about their players' health yet, according to Linda Arnold, coaches may be putting their players in a life or death situation by allowing them to chew gum while competing.

Whether by design or out of necessity, most coaches are never out of season. Patricia Meiser discusses activities which, if done off-season, can relieve much of the pressure usually felt during the regular season.

Jae Allen discusses pre-season conditioning for women and girls, an often overlooked but vital aspect to a successful season.

A difficult task for coaches is the selection of a small basketball squad from the large number of people who try out for a team. Lynda Umfress gives a simple battery which can evaluate a large number of participants' performances.

The individual and team techniques involved in a successful basketball performance are more highly refined than ever before. Cathy Benedetto offers ideas on how to analyze and improve shooting techniques; Lois Klatt presents techniques for teaching and practicing the "continuity offense"; and Edith Godleski provides a primer to coaches for teaching players how to break the zone press.

Scorebooks reflect that many games are lost or won at the free throw line. Jo Streit outlines a technique for improving free-throw shooting effectiveness and efficiency.

More and more coaches attempt to recruit tall players for their basketball team. Roy Bowling demonstrates that it is the effective use of a player rather than height alone which is important in the development of a post player.

Every effort has gone into making this a valuable reference to players, teachers, coaches, and all others interested in basketball. The reader can judge if we have been successful.

JEAN L. PERRY
Chairperson, NAGWS Basketball Guide
Champaign, Illinois

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DEALING WITH ANXIETY — PSYCHING UP, NOT OUT

LINDA K. BUNKER

Linda Bunker is chairperson of the Department of Health and Physical Education at the University of Virginia. She has been active in writing and research related to improved sport performance and is currently director of the Motor Learning Laboratory. Dr. Bunker was a three-sport athlete (basketball, field hockey, tennis) at the University of Illinois where she received her B.S. degree in 1968 and her Ph.D. in 1973.

Many teachers and coaches believe that the best way for an individual to be prepared for an athletic contest is to increase arousal levels and motivation to their maximum. Too often the view is held that if athletes are not "sky high" or "psyched up," they are not mentally prepared to perform. Just the opposite is true; the prepared and self-confident learner or athlete is the relaxed, moderately aroused individual.

Athletes do not perform skills most effectively when arousal levels are extremely high. Optimal levels of arousal vary with the activity, so that coaches and teachers must be able to identify the levels required to determine how to control and/or manipulate these levels to obtain the best competitive results.[1] In general, it has been found that for each sport or skill, an individual needs to be aroused to a level above his/her normal resting state, but not to too high a level. Persons who are apathetic or under-aroused may require experiences (or comments) that cause an increase in arousal levels, while performers whose arousal levels are already quite high (especially athletes before game time) may perform better by reducing their anxiety.

The relationship between an athlete's level of arousal and his/her motor performance is an excellent example of the hypothesized Inverted-U relationship (Figure 1).[2] For example, a basketball player performing at moderate levels of arousal may be able to make 80% of the free throws attempted; if underaroused or overaroused, the athlete may perform at only a 50% efficiency level. In Figure 1, optimal performance can be seen at the top of the graph, while the 50% level could be the result of either being underaroused (X_1) or overaroused (X_2).

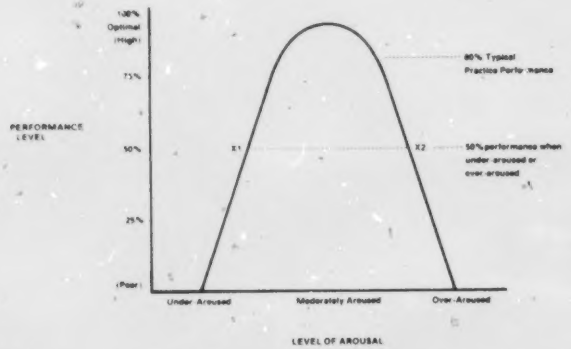

Figure 1. The Inverted-U hypothesis illustrates that basketball free throw shooting or performance is generally maximized when arousal levels are at a moderate level. Over-arousal can impair performance as markedly as can under-arousal.

The coach whose team performs poorly in important games must avoid making the assumption that the players were not psyched up, for it may be that the team was psyched up and *out*, perhaps because of overarousal. Similarly the player referred to as a "good practice player," but who apparently clutches or chokes at game time, simply may be the player who becomes overaroused.

The degree of arousal exhibited by each athlete is often directly related to such factors as the importance or incentive value of the game, the perceived danger, the social importance, or the evaluative potential of a situation. For example, we can all identify with changes in arousal levels and performance when an important person comes to observe, when the parents of the freshman star are in the audience for the first time, or when the arch rival team is the opponent. On the other hand, low arousal levels can be observed to have a negative effect on such situations as the last game of the season when the team is already in last (or first) place or when the score is lopsided. Ahart found that shooting percentage is related to the closeness of a game. If, for example, a game score was moderately close (5-8 points), the shooting percentage was optimized (72%), but if the difference was 9 points or more, shooting percentage was only 55%. If the game was very close (1-4 points), players tended to be overaroused and the percentage fell to 53%.[3]

Consider Each Player Individually

Response to arousal and motivational techniques varies from individual to individual, but a certain level of consistency can be expected within any one athlete. Athletes who tend to respond with greater intensity in one situation will, in general, respond with higher levels of intensity in other situations. A good coach recognizes which players are overaroused and which are underaroused, then helps each athlete learn to control the level of activities to maximize performance.

Explanations for the divergent reactions of persons of varying personality structures are complex. One key factor is that different situations are perceived differently by each individual, depending on the person's predisposition and past experiences. No single situation will be received with equal arousal potential within each individual.

Some athletes tend to "perceive competitive situations as threatening and to respond to these situations with feelings of apprehension or tension"; the Sport Competition Anxiety Test has been designed to assess this trait.[4] There is some evidence that this trait may be a critical component in determining the relationship between sport and anxiety and/or arousal since in a competitive situation, persons with high competitive anxiety may be more negatively affected. If a person is particularly sensitive to social evaluation and perceives a particular game to be very important (e.g., a college scout will be in the audience), the player's anxiety is likely to increase. If increased arousal has been detrimental to previous performance, the coach should help the performer re-evaluate or alter the perception of the situation, or shift the focus to task orientation through modeling, positive reinforcement, cognitive reappraisal, etc.[5]

Unfortunately, the overly anxious athlete often is accused of lack of motivation or not being ready because of poorer performance. Coaches and teachers often misdiagnose the cause of this decrease in level of attainment and attempt to increase the motivational drive or stressors, thereby causing even worse performance. It is a vicious cycle — poor performance causes greater stress which causes even poorer performance.

Group pep talks and half-time "psych-ups" designed to increase all arousal levels must be critically evaluated. If group techniques are used, the group should be

organized homogeneously. For example, perhaps coaches should house or meet with highly aroused athletes separately from those who may be underaroused. Or perhaps basketball guards require different techniques than forwards, starters different methods than reserves, etc.

Arousal Affects Various Skill Levels Differentially

Negative effects of stress seem to be particularly apparent in beginners or in performers who are not proficient at a given skill or aspect of the game. This can be predicted since beginners are more likely to make mistakes. In general, whatever response is most predictable in beginners will occur in stressful situations. Thus, during the introduction or practice of new material and skills, arousal levels should be held at a low or moderate level. Practice and learning sessions should be interesting, well organized and enjoyable. Competitive situations (i.e.. games and relays) designed for motivational purposes should be used with great caution.

For advanced players, the dominant response, or the one with the highest probability of occurring, will be the correct response. Advanced performers may therefore be helped by increased arousal levels. For them, the dominant response may mean a successful shot, an extra fake, or a beautiful drive and score while for beginners, it is likely to be an incorrect response, a missed shot or failure to set the screen. This concept also explains why bad habits tend to reappear at the most inopportune moments.

For coaches, the following applications may help illustrate this concept:

- Reliable, well-rehearsed plays or skills should be used in critical situations or for the "arch rival."
- Avoid teaching new plays or skills the day before an important contest or before an audience.
- When the score is close, use well-learned skills.
- Do not try to break bad habits or introduce new plays at times when arousal levels are apt to be high.

Athletes can be seen practicing their favorite shots during pre-practice warm-ups. Many athletes avoid practicing their weaker skills because they are either embarrassed or know that people are watching and their performance will be worse than ever. A good practice technique is to have athletes rank-order their five weakest skills (or new, desired skills) and then devote 10 minutes of each practice session to individual work on these skills. This will allow athletes to help themselves and each other without fear of evaluation.

Once skills are learned, athletes should perform under stress during practice in order to learn to deal with it. Use of scrimmages, intersquad competition and pre-season games may be helpful. On the other hand, more proficient athletes may respond positively to socially facilitating situations. A similar finding exists when proficient athletes attempt to perform newly acquired skills while under competitive stress and find their performances impaired.

Tasks are Sensitive to "Psych-out"

Each type of skill may be individually responsive to various levels of arousal or anxiety. For example, relatively simple tasks are generally not negatively affected by higher levels of arousal whereas complex tasks are usually performed better at lower arousal levels. This might be explained by the dominant response hypothesis since complex tasks have a higher probability of incorrect components and would therefore be more sensitive to the negative effects of arousal. High arousal levels also seem to

affect skills requiring accuracy, balance and precision more negatively than skills requiring strength or speed.

The implications of this concept can be seen in both good coaching practice and strategic "psych-out" behaviors of the opposition. For example, a player who is about to attempt a tie-breaking free throw should be encouraged to relax so as to reduce arousal level. Opposing coaches often attempt to increase that same level by calling a time-out to let the athlete "think about" how crucial the free throw may be and therefore unconsciously raise the athlete's arousal level and reduce the probability of success. Thus a good coach must help athletes to concentrate on the goal and mentally rehearse the shot but should avoid giving specific information such as, "be sure to extend your elbow."

The somewhat oversimplified generalization that high arousal levels might facilitate tasks requiring strength and speed must be applied cautiously to most sports since there are few skills in sports such as basketball requiring massive strength or speed alone. Most require some degree of accuracy and/or decision making — and are likely to be interfered with if arousal levels are too high. For example, a center about to execute a jump ball must be mentally alert and prepared to make split-second decisions, as well as produce strength to "get the tip." In critical moments the coach should recognize that athletes might need calming down. A vivid example is often seen on the tip-off of championship games when both centers go up for the tip but neither hits the ball. These athletes are probably psyched out.

Ideally, it would be beneficial if we could rank order motor skills in terms of some continuum such as precision and accuracy vs. strength and speed, and thus predict what level of arousal would produce maximum performance results. Such a listing would be difficult, although in general the skills such as free throw shooting and passes from out-of-bounds are better conducted under lower arousal levels whereas fast breaks and rebounding generally benefit from higher levels, or at least wider ranges of arousal.

It has been suggested that the nature of the task, in terms of all requirements, including difficulty, might change the amount of arousal which can be tolerated (i.e., the shape of the Inverted-U curve). More difficult tasks may require a very sensitive amount of arousal (narrower Inverted-U) and consequently a smaller range of arousal levels to produce optimal results. Figure 2 illustrates this concept and suggests the complex interaction of such factors as strength or energy requirements combined with task difficulty to reduce even further the range of optimal arousal.

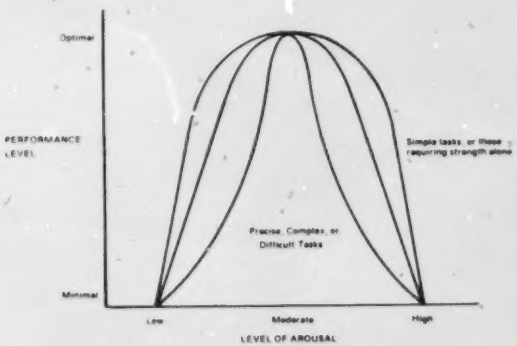

Figure 2. The hypothesized effect of task difficulty and arousal levels on performance. (Modified from Martens, 1977)[4]

In addition to the specific characteristics of the task, the environment in which the task is performed can also affect its level of execution. If performance takes place in a new environment, this can add to the performer's arousal level and perhaps help to explain the well-known "home court advantage." To decrease the negative aspects, the coach should make sure that participants are given accurate and complete information about the environment, or preferably, be given an opportunity to practice in the new situation. College teams frequently arrive at least one day before the contest in order to practice on the opponent's court. This becomes particularly critical when arousal may be affected by the unknown quality of equipment to be used, such as different court surfaces, artificial lighting and glass backboards.

Hostile or friendly audiences also have an impact on arousal and subsequent performance levels. Teams should know what to expect and how to deal with the event. An understanding of the "snake pit" reputation of a gymnasium or mental rehearsal of its actual appearance can facilitate adaptation to that gym rather than leaving it to players' imagination. The unknown is often much worse than the known.

Helping Athletes Deal with Arousal

During recent years a variety of techniques have been introduced to train basketball players to control their own internal states in an effort to cope with irrelevant anxiety-producing stimuli and concentrate on the overall goal of the performance. These techniques have yielded faster learning rates and improved skill execution during game situations.

Visual Imagery and Mental Rehearsal. Many coaches and professional athletes are now utilizing mental rehearsal to enhance athletic performance and reduce anxiety. This technique builds confidence and allows players to imagine dealing with anxious situations and to learn coping mechanisms.[6] Visual imagery and mental rehearsal are used by many basketball teams to enhance free-throw shooting percentages. Each player learns to imagine the exact details of going to the free throw line, being handed the ball, hearing the crowd, feeling the anxiety, breathing heavily (to induce muscular relaxation), and successfully shooting the free throw.

Similar techniques can be used to deal with major components of teamwork. For example, during a time-out, a player can imagine dealing with the opponent's switch from a player-to-player to a zone defense or full court press. In this manner, some of the uncertainty of the situation can be dealt with successfully. Spending a time-out to mentally rehearse concepts can be much more useful than an impassioned speech to "win one for the Gipper."

Relaxation Training. Coaches, teachers and athletes now recognize that attaining a relaxed state of confidence in one's ability is crucial to success in sports. Some athletes never seem to experience this state, and generally lack confidence. Frequently the coach's only suggestions are to shout "relax" or emphasize positive thinking. The result is usually a confused, anxious and depressed athlete.

Becoming relaxed is essentially a matter of shifting gears mentally to narrow the focus of attention to one specific aspect or element at the expense of all others. This can be done through such classical techniques as hypnotism, zen, yoga or autogenic training. But for athletes, *progressive relaxation*[7] and/or its antithesis, the *relaxation response*,[8] can be quite effective.

Progressive relaxation can be taught through a series of alternate muscle tightenings and relaxations. Athletes generally start by deliberately increasing tension, which heightens self-awareness of how and where tension is experienced. This awareness allows athletes to control their own tension levels and to prepare them-

selves individually before and during competition so as to produce peak performance levels.

Athletes generally learn this technique by lying down and relaxing specific muscle groups, starting with the right arm and progressing to the left arm, right leg, left leg, stomach, chest, neck, forehead, eyes, cheeks, jaws, total face, and total body. Through this systematic procedure athletes learn to discriminate between muscular tension and the release of tension in specific muscle groups. Once general relaxation is accomplished, the athletes can be taught *differential relaxation* to minimize extraneous tension or energy not necessary for a specific sport movement. Athletes learn to be sensitive to tension patterns necessary for each skill they perform, called *primary tensions*, as well as other tensions not required for skilled performance. These tensions can distract the athlete and waste energy (effort error).

Positive Mental Rehearsal. Typically rehearsal techniques have athletes identify a peak performance or time when they felt relaxed. They are then asked to try to visualize their bodies moving fluidly and easily.[6] Since mental rehearsal is more effective when the body and mind are relaxed, athletes should use one of the relaxation procedures prior to mental rehearsal. It is often helpful to focus on their strongest skills in their most relaxed situation and then work sequentially toward their weakest skill in their most anxious situation. In the last step, athletes should mentally rehearse a situation such as running a two-on-two fast break in the final seconds of a championship game with their team two points down, and playing in the opponent's band box gym filled with hostile fans. It is amazing how familiar athletes can be made to feel in situations they have rehearsed. It is as if mental rehearsal acts as a "practice run" so that the activity will be easier the second time through. Mental rehearsal can help build self-confidence and make relaxed "veterans" out of nervous rookies.

Model Training. Athletes should experience stress situations in practice which are similar to those which will be experienced in actual game situation (Model Training).[9] Typically there is more tension in game situations than in practice. Athletes who frequently must perform under stress in practice will learn to handle stress more effectively in games. Mental rehearsal is one form of stress training done in the imagination while model training involves simulated game practices that include using referees and scoreboards, wearing game uniforms, keeping statistics, piping in group sounds, or actually practicing in front of a large vocal audience.

Build Self-confidence

Athletes must feel good about their level of competence — the power of positive thinking cannot be underestimated. The coach must therefore establish learning and practice environments which allow athletes to be successful and to realistically evaluate their performance. The concept of *self-efficacy* may be one of the critical distinctions between winners and losers. It appears that if an athlete is capable of performing a desired skill and is motivated to do so, then performance will be determined by the athlete's own self-concept related to competence. Athletes who believe in themselves have a much higher rate of success.

Self-talk. There are several well-known techniques for enhancing self-confidence, including positive mental rehearsal coupled with positive *self-talk*. The use of resolutions or self-efficacious statements can directly affect an athlete's mental attitude.

Self-talk is often a major factor in sport. Many athletes generate self-statements that are related to fear, failure or disapproval (e.g., "What if I let down my coach" or "Oh no, not a zone defense — we never score against one"). This type of worry or

negative talk is characteristic of high stress athletes and of those who have experienced numerous failures. If an athlete focuses on being a "motor moron," performance will reflect this.

Athletes should be encouraged to put positive images in their minds and positive skills will be demonstrated. They should be encouraged to think about "the ball going in," not "what if I miss," or "I'm a good free throw shooter," not "I never miss a free throw." Such statements must, however, be coupled with positive reinforcement from the coach.

Realistic Goal Setting. Athletes will develop self-confidence and perform in a more relaxed fashion if their goals are realistic. Coaches should assist players in outlining a progressive sequence of goals to help them maintain concentration and be aware of realistic expectations. It was suggested above that each player identify his/her five weakest skills or five new skills to be attained. Once these have been set down, a series of target goals should be planned. For example, the athlete can set a goal to be able to hit 2 out of 10 jump shots from the free throw line by the second week of practice, 3 out of 10 by the third week, etc.

Realistic goal setting is critical during game play. Rather than telling the defense to "contain" the star of the opposing team, the team members can set a goal of limiting the opposing star player to four points per quarter. This technique allows the players to evaluate their performance periodically and to re-establish new or different goals when necessary. It is also effective as a reinforcer for positive self-talk.

Conclusion

A variety of techniques have been outlined to help coaches and players maximize their performance potential. Basketball teams which practice these techniques will find that their attitude and play will be greatly improved and that they will be able to maximize their potential.

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CO-RECREATIONAL INTRAMURAL BASKETBALL: A DO-IT-TOGETHER SPORT

CHRISTINE Z. HOWE

Christine Howe received her doctorate from the Department of Leisure Studies at the University of Illinois at Urbana-Champaign. She is currently an assistant professor with the Department of Recreation and Park Administration at the University of Missouri-Columbia.

The Division of Campus Recreation at the University of Illinois (Urbana-Champaign) was among the first organizations to implement co-recreational intramural basketball in the mid-1960s. Today, basketball remains one of the Division's strongest co-rec intramural programs. There is great interest and a high degree of participation, especially considering the variety and number of programs that the Division offers.

Co-rec intramural basketball is non-competitive play designed for social interaction and for plain fun. All students, faculty and staff are eligible to play in the same league. A "Players Without Partners" board is available to link individual players to teams in need of members.

The rules of play are modified to enhance the role of women on the team. At the University of Illinois, each team consists of five players, two men and three women. Substitutions are allowed on a man-for-man and woman-for-woman basis only. Each team must have at least one extra player to assist in scoring and timekeeping. It is encouraged that the team roster be large and substitutions be made freely. The games consist of two 15-minute halves of running time. Time-outs are 45 seconds, with two non-consecutive time-outs allowed each team per game. No time-outs are allowed in the last minute of the first half or in the final three minutes of the second half. Overtime periods are three minutes. As many overtime periods as needed are used until a winner is determined. Play begins with a jump ball between women players from each team. All jump balls between men participants are conducted at the mid-court restraining circle.

Scoring modifications also affect the tenor of play. Field goals scored by men are worth two points each while those scored by women are worth four points. Free throws scored by men are one point each and those scored by women are two points. Women may guard only women and men may guard only men. Any violation of this rule is considered a technical foul charged to the team whose member committed the violation. The shooting team may designate any member of its team to shoot the technical, with points awarded on the basis of one point per field goal for men and two points per field goal for women. Such modifications in play and scoring appear to make the activity more co-equal and more fun for both men and women players.

A final special regulation restricts men players from the entire area of the free throw lane, from the free throw line to the baseline, *at all times and on both ends of the court*. This holds true for offensive driving, defensive guarding, offensive dribbling, rebounding for both field goals and free throws, and all other cases without exception. Violations of this regulation are treated as follows:

- If the encroachment is in the violator's offensive court, the ball is awarded out-of-bounds to the other team.
- If the encroachment is in the violator's defensive court, it is treated as basket interference whether a shot has been attempted or not. Points shall be awarded to

the other team on the basis of which player was in possession of the ball at the time of the violation.

Obviously this allows the women greater access to the area nearest the basket. The three-second lane violation does apply to women. It is legal in co-rec intramural basketball for a player to maneuver out-of-bounds to avoid passing through the lane.

To encourage proper conduct during contests, teams are given a good sports grade. This emphasis on sporting behavior, combined with the modified rules for co-rec intramural basketball, makes this athletic activity very enjoyable. Players report, "We're in this to do it together" and "I'm here for the fun of it." At the University of Illinois, co-rec intramural basketball is perceived to be a good way for men and women to interact socially through non-competitive play.

For more information about the rules and regulations for co-rec intramural basketball, procedures for organizing co-rec programs and leagues, and round-robin and double elimination tournaments, write to the Division of Campus Recreation, IMPE Building, Peabody Drive, University of Illinois at Urbana-Champaign, Champaign, IL 61820.

WORKING WITH THE MEDIA

ANN PENSTONE

Ann Penstone received her B.S. degree from the University of Illinois, Champaign. She is the varsity basketball coach at Buffalo Grove High School, Buffalo Grove, Illinois. She has served as the television color commentator for the Illinois High School Girls' State Basketball Tournament for the last two years.

With the advent of widespread athletics for girls and women comes the need to deal effectively with the media to ensure positive publicity. We have increased and improved our budgets, facilities, space allocation and athletic skills. Now that we have a saleable product, how best can each of you display it?

Probably the most important thing is to actively seek out the media people in your area. Make it as easy as possible for them to get to know you and help make exact information readily accessible. When giving information, be specific about what facts should or should not be published, else you might find the strategy for next week's game in Friday's late edition. If there are any problems about items being published, go straight to the sportswriter to calmly iron out the difficulty.

At your pre-season meetings with conference coaches to discuss schedules, rules, etc., invite all local media people so that they can meet the coaches, be made aware of policy and rule changes affecting their articles, and become an integral part of your season. Ask if they have any suggestions that would make the assimilation of information easier for them. If possible, obtain a telephone number which the home team could call the night of a game so that the results can be published in the morning news. Give the sportswriter each coach's schedule and phone number at school. Have each coach send a copy of the eligibility list with correct spellings of athletes' names, a roster with numbers and positions, pertinent statistics, a schedule of games, and important background information, including athletes who have moved, summer tournament results, expected key performers, captains, and returning letter winners.

The public will want to attend your events if they feel they know your athletes. Human interest stories stir support. You can provide the local paper with interesting facts for an article or suggest that a feature be done about each team during the season so all hometown readers will feel well represented. After the season is over, send a complete statistics booklet to all media and have your sports information coordinator send a copy of final standings, All-Conference players, and comparative team statistics on the top five rebounding teams.

Most areas have male Athletes of the Year. There probably could also be an award for females if the awarding group were approached. Inquire about starting an "Athlete of the Week" from your local radio station or newspaper.

Working with audiovisual aspects of the media presents unique problems which can be alleviated. Color commentators or play-by-play announcers may never have seen your team play. They have to analyze quickly and describe a great deal of action. There are many moments during events where they need fill, i.e., background information and interesting notes to give a complete broadcast of an event. The following is a partial list of items which can be helpful to the analysts:

- roster with heights, positions, numbers (weights are seldom used)
- team record, school size, colors and nickname, coach's record and university attended
- type of offense and defense used (it does not always look exact with the variations now in use and analysts like to look good, too)

- factors that are crucial to the contest's outcome — fast break, covering the cross-court spike, etc.
- key individuals, special team or individual strengths and weaknesses
- how your team fared against this team before and what changes have been made
- related teammates and scholastic standings
- athletes' other school interests or awards
- injuries just prior to the contest or unusual circumstances which might affect the contest

Television broadcasters must be as knowledgeable about a contest and its competing teams as possible. Play-by-play is more easily handled if the announcer is familiar with each coach's strategy. The viewing audience is becoming well informed and expects an accurate, informative broadcast.

The major thing to remember is that the sports media exist because of the athletes involved. The better information you provide, the better they can effectively present your endeavors to an appreciative public. It is crucial to assist the media positively, as they can often either make your program sell or remain in obscurity. Be a salesperson. . .present your teams enthusiastically, provide exact and complete information, and make yourself available. Deal with the media as you do with your colleagues, helpfully and as one professional to another.

THE GUM HAS GOT TO GO!

LINDA S. ARNOLD

Linda Arnold received her B.S. degree from Murray State University, Murray, Kentucky, followed by an M.S. degree from Ft. Hays State University in Kansas. Currently she is serving as the women's athletic trainer and as an instructor at Memphis State University.

Distressful as it may seem, there are athletes who die every year from a condition which is absolutely preventable. This condition is known as a completely obstructed airway, and gum is the potential killer. The habit of chewing gum has become a "tradition" in some sports. Should gum become lodged in an athlete's airway, a skilled person would be required to relieve the obstruction.

A primary duty of an athletic trainer is to prevent injuries. However, few trainers enforce a no-gum-chewing policy for their athletes. In the absence of an athletic trainer, the responsibility falls upon the coach. This is one accident that should never take place at an athletic event. Pressure from players as well as from some coaches is applied with comments such as "I've chewed gum all my life, played ball, and never gotten choked once." It only takes one time, and only a few minutes at that, to kill an athlete when she/he cannot breathe. Two deaths resulting from athletes chewing gum during athletic contests were reported in the *Memphis Commercial Appeal*. These deaths have helped educate people to the dangers of gum chewing, but it's a pity that it takes death to get a point across.

Figure 1 illustrates the anatomy and location of the airway, or trachea. The trachea (A) is located directly under the skin in the front of the neck. The esophagus (B), or passageway for food, lies behind the trachea. When swallowing, a small flap, the epiglottis (C), covers the opening to the trachea and prevents food from entering the airway.

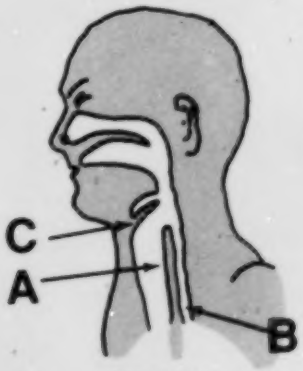

Figure 1.

If an athlete gets hit unexpectedly from the rear, the head may momentarily be thrown back, straightening the passage from the mouth to the trachea. Consequently, gum can easily get lodged in the airway. Figure 2 shows a possible location of the gum in the airway. In this position, the gum cannot be reached from the victim's mouth and must be removed by a skilled person.

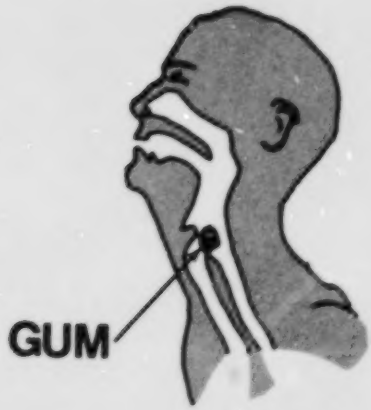

Figure 2.

To clear a completely obstructed airway, give four quick blows to the area between the shoulder blades. If this does not dislodge the gum, use the easy-to-learn American Red Cross method known as the Manual Thrust Technique, or more commonly, the Heimlich Maneuver. The Red Cross illustration on page 27 shows the basic techniques in administering the manual thrust.

A few hours of training may be all that is necessary for a person to save a life. It must be emphasized that an untrained person should enroll in a class to fully comprehend these procedures, and that these illustrations in no way provide adequate information for its use. This technique should never be *practiced* on another person because of possible internal injuries sustained in improper technique.

FIRST AID FOR CHOKING

If victim can cough, speak, breathe ➧ Do not interfere

If victim cannot
cough
speak
breathe

Have someone call for help. Telephone : _____ (Number)

TAKE ACTION: FOR CONSCIOUS VICTIM

Repeat steps until effective or until victim becomes unconscious.

TAKE ACTION: FOR UNCONSCIOUS VICTIM

Repeat steps until effective.

Continue artificial ventilation or CPR, as indicated.

Everyone should learn how to perform the above first aid steps for choking and how to give mouth-to-mouth and cardiopulmonary resuscitation. Call your local Red Cross chapter for information on these and other first aid techniques.

Caution: Abdominal thrusts may cause injury. Do not practice on people.

THE AMERICAN NATIONAL RED CROSS

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ORGANIZATION IN THE OFF-SEASON

PATRICIA H. MEISER

Pat Meiser is in her fifth season as head coach at Pennsylvania State University. She received a B.S. degree in 1969 from West Chester State College and an M.Ed. degree in 1971 from Penn State where she is currently an assistant professor in the College of Health, Physical Education and Recreation. She is also coordinator for the 1979 AIAW National Championship. Pat has served on the EAIAW and AIAW Basketball Committees and was tournament director for the 1976 National Championship.

In the world of sport, the woman who is hired solely to coach is rare. The woman coach will, for the most part, divide her time between coaching and teaching. For the collegiate basketball coach, the season begins when players arrive on campus in the fall and concludes late in the spring when post-season play is over and the hectic whirlwind of scheduling and recruiting comes to an end. The academic and athletic responsibilities of the season often deny opportunities for thoughtful reflection and reorganization.

Much of the pressure of the regular season can be eliminated by advanced preparation of files and papers for the upcoming season. Players and general public alike often fail to acknowledge much of the behind-the-scenes preparation. Coaches promote the importance of off-season preparation to their players and this unglamorous but essential task can certainly be applied to the coaching profession as well. Advanced organization in the following systems can reduce the "busy work" during the regular season.

- organization of a seasonal calendar
- detailed review of opponent files
- thorough analysis of game tapes and films
- preparation of statistical forms
- updating of recruiting files
- review of statistical forms
- organization of responsibilities of support personnel (assistant coaches, student manager, timers, scorers, janitorial help, officials)

Seasonal Calendar

Establishing a seasonal calendar is one of the coach's most important off-season projects. Once the regular schedule has been finalized and information regarding the school calendar has been obtained, the coach needs to break down the calendar into sections: tryouts, pre-season, in-season and post-season. The number and length of practices in each section should be noted in addition to games, tournaments and holidays. Tryout and pre-season practices should be carefully planned to provide for maximum content and efficiency. This should include the selection of a group of adequate size and the development of individuals for specific positions as quickly as possible. This is an important period for players to begin to mold together in various combinations for team play. Development and review of fundamentals, conditioning and presentation of basic offensive and defensive sets should be the primary thrust of pre-season play.

Preparing a skeletal calendar should not be done haphazardly. It is very easy to provide "full" practice sessions without actually accomplishing intended goals. Any

new material demanding a major change in the offensive or defensive picture must be introduced during the pre-season practice sessions.

Once the regular season begins, the major portion of the practice sessions should be devoted to maintaining condition, perfecting skills and preparing for specific opponents. The actual length and content of these practices will be determined by the calendar, the game schedule as it relates to the academic schedule (finals, mid-terms), and the immediate atmosphere surrounding the team.

Often there is a short time span between the final regular season game and the beginning of post-season or tournament play. Because this can be an extremely critical time, schedules should be planned to provide for peak play. Coaches must carefully examine the content of each practice session and develop innovative and stimulating practice sessions.

Opponent Files

Each coach should maintain a separate file on all regular season opponents. Prior to each contest a *pre-game plan* should be prepared based on any scouting reports or newspaper clippings to provide the groundwork for specific preparation for any designated opponent. Within the hour prior to the contest, the coach should carefully review with the players the offensive and defensive strategies they should expect to see and the counter-tactics for them. A general philosophy of major thrusts, tempo and control should also be established.

Within several hours following a contest, a *post-game report* should be prepared. The pre-game report is reviewed to analyze the similarity or disparity of the original preparation. This is absolutely essential if a coach is to develop as an analytical "anticipator." Being able to anticipate from the locker room and from behind the desk is often as critical as the sixth sense coaches often look for in players.

The post-game report should summarize the opponent's strengths and weaknesses and their offensive and defensive structures. Included in general offensive and defensive patterns should be statements relating ability to and patterns of fast break play, types of presses and their weaknesses, post-play, and defensive positioning. Statements analyzing each player's strengths and weaknesses should also be noted. This might include a statement of a player's capacity to use the weak hand, ability to move without the ball, favorite moves with the ball, defensive weaknesses, positioning under the board, and emotional makeup. A similar summary of the coach's personnel against each opponent should also be made. It is particularly important to formulate a general game plan for future contests. Why did we lose (or win)? How can we minimize our weaknesses and more fully exploit the opponents'?

The post-game report should also include a shooting chart, rebound chart, progressive game breakdown (play by play), and box score. A printed program with the order of substitution recorded is also valuable for future planning. Logistical information such as floor surface, type of backboard, arena, lighting and uniform color might also be noted.

Film Reviews

The summer months provide time for an in-depth film analysis of key games from the previous season. Most educational institutions have sophisticated videotaping equipment. Being able to play back game sequences repeatedly for individual and team play analysis is critical to a team's future development. Astute coaches recognize that games are not won or lost in the last minute of play but rather are a result of considerable interaction among players, coaches and officials over a 32- or 40-minute period.

In analyzing an opponent from film, it is first important to establish the various offensive and defensive patterns used. Once an offensive pattern has been recognized, all options utilized off the pattern should be noted in addition to which options were most successful. Where does the major offensive thrust appear to be? Defensive structures should be analyzed for a primary and secondary area of weakness. Depending on the defense, this may imply an area of the floor or a particular individual.

Out-of-bound plays, press attacks and jump ball patterns should also be noted. Coaches tend to use material which is familiar to them and which has been successful in the past. In addition, coaches will rely on key individuals to do specific tasks. By wisely exploiting key individuals and team systems, a breakdown in the opponent's teamwork can result.

Recruiting Files

The off-season provides an especially welcome relief from the hectic period of recruiting that is quickly developing in the college game. At this time, college coaches can clear files of old correspondence and highlight the major prospects for the upcoming year. Institutional literature, including academic and athletic brochures and application and admission materials, can be collected so that it will be ready for dissemination in the fall.

High school coaches should develop a literature file on athletic and academic institutions that provide quality programs for their athletes. Many high school coaches, along with parents, now accompany student athletes on campus visits to inspect facilities and to become more familiar with the athletic and academic programs available. It is critical that scholastic coaches familiarize themselves with academic standards (minimum SAT scores, high school grade point average, class rank) established by the various institutions as well as the many sources of federal, state and local aid available to qualified high school seniors.

Statistical Forms

Many standard statistical forms are needed throughout the regular season. The summer months provide a time for the coach, in coordination with a sports information director, an assistant coach or an interested student or parent, to review such forms for possible revamping and production during season use. This might include a shooting chart, rebound chart, progressive game breakdown forms and box score forms.

Accurate and detailed statistical information is necessary if programs are to attract the media coverage so obviously lacking currently. In addition, high school players hoping to play in college will also need complete statistics to give to the collegiate coach.

Support Personnel

Much advanced preparation is necessary when a facility hosts an athletic event. There is a tendency for coaches to assume the major responsibilities for this logistical work. However, by giving some advanced thought to assigning various phases of the operation to assistant coaches, managers and janitorial help, the head coach can be free to concentrate solely on the development and preparation of the team. It is wise to be explicit when describing to support personnel their responsibilities for various parts of the program. Checklists are helpful reminders for the personnel.

In addition to much of the mundane reorganization during the off-season, there is an opportunity for coaches to relax, become more involved in the sport outside their immediate geographic area and grow and develop through clinics, camps and workshops. Success in coaching, whether it be displayed on the scoreboard or in the characters of those who participate, can be enhanced through off-season preparation.

PRE-SEASON BASKETBALL CONDITIONING FOR WOMEN AND GIRLS

JAE ALLEN

Jae Allen is presently completing her master's degree in exercise physiology at the University of Illinois. She has designed and directed the pre-season conditioning program for Illinois' women's intercollegiate basketball team for the past two seasons.

Pre-season conditioning for interscholastic basketball is as essential to the female high school athlete as to her male counterpart. Since a well-developed conditioning program can enhance athletic performance and reduce the chances of common injuries, the benefits of pre-season conditioning are desirable for any prospective basketball player.

To ensure adequate results from pre-season conditioning, the program should begin at least eight weeks before the basketball season. Many high school girls play volleyball during this time. If possible, they should also participate in the training, as it will not hinder their volleyball performance but can actually enhance it.

Training should take place three non-consecutive days a week (e.g., Monday, Wednesday, Friday). The program should be designed to develop three essential aspects of physical conditioning: flexibility, strength and cardiovascular endurance. In addition, basketball skills should be practiced periodically otherwise the athlete might have difficulty adjusting to her newfound strength when the season begins.

Flexibility

Flexibility is defined as "the range of possible movement in a joint (as in the hip joint) or a series of joints (as when the spinal column is involved)."[1] Range of motion at each joint is limited by both the configuration of the boney structure and three types of soft tissue: muscle, connective tissue such as ligaments and tendons, and skin. Although the ultimate range and type of motion is determined by the boney structure, flexibility can be improved by reducing the soft tissue constrictions through exercise.

Any preseason basketball conditioning program should include a series of flexibility exercises. These exercises should take the form of a slow stretch and not be done in a bouncing, jerking manner. The prospective basketball player should concentrate on improving flexibility of the ankles, hips, back and shoulders, being sure to stretch the quadriceps (front of the thigh), hamstrings (back of the thigh) and calf muscles. The following exercises are designed to improve flexibility in each of these joints.

Flexibility Exercises

Hurdler's Stretch. Sit on the floor, extend one leg and fold the other leg by touching your heel to your hip. Keeping the knee of the extended leg locked and the ankle at a 90° angle, attempt to touch your nose to your knee. Repeat the exercise at least 10 times on each leg to stretch the hamstrings adequately.

Leg Raise. Wrap a rope or belt around the ball of your foot. Lie on your back and raise your leg as far as possible, keeping your knee locked and your foot at a 90° angle. Tug gently on the rope or belt to stretch the hamstrings slightly. Repeat 10 times and switch legs.

[1]Herbert A. deVries, *Physiology of Exercise for Physical Education and Athletes*, 2nd ed. (Dubuque, IA: Wm. C. Brown, 1974), p. 432.

Hamstring Stretch. Face a table which is about waist high. Place one leg atop the table. Keep your hips parallel to the table and your knee locked while you attempt to touch your toes. Repeat 10 times and switch legs.

Quads Stretch. Lie on your stomach and grab your right ankle with the right hand. Pull the knee off the ground to stretch the quadriceps. Be sure to keep the hips on the floor and prevent the knee from swinging away from your body. Repeat 10 times and switch legs.

Shoulder Stretch. Clasp your hands together behind your back, straighten the elbows and attempt to lift your extended arms as high as possible. For additional stretch, extend the arms behind your back and have someone gently push your arms as close together as possible.

Calf Stretch. Stand an arm's length away from a wall. Keeping heels on the floor, knees locked and the back straight, lower yourself toward the wall by slowly bending your elbows. This exercise stretches the Achilles tendon.

Heel Raise. Support your weight on the balls of your feet on the edge of a bench or stair. Slowly lower until the calf muscles are stretched, then forcefully push up to stand on your toes. Repeat 10 times to stretch the Achilles tendon and strengthen the calf muscles.

Low Back Stretch. While lying on your back, slowly draw both knees up to your chest. Grab your knees with your hands and slowly pull your hips slightly off the floor. Relax and repeat 10 times.

Strength

Strength training is based on the overload principle which dictates that a muscle must be "required to work at a higher intensity than that to which it is accustomed" to gain strength.[2] However, there is much controversy about which is the best method to develop strength. For example, one popular belief states that the athlete must perform three sets of 10 repetitions to improve strength. (A repetition is the performance of the complete exercise one time, while a set is a group of repetitions done consecutively without resting.) When using this method, the athlete chooses a resistance such that she can perform the first set without difficulty, finishes the second set with effort but cannot complete 10 repetitions on the last set. If she performs the last set completely, he should increase the resistance on the next workout.

Another popular workout requires only one set of each exercise. If the exercise deals with the lower body, the set should include 10 to 15 repetitions. However, if the exercise focuses on the upper body, only 8 to 12 repetitions need be completed. The athlete sets the resistance so that she can perform at least 10 repetitions (8 for the upper body) but no more than 15 (12 for the upper body). By continually increasing resistance to maintain the proper range of repetitions, the athlete will develop strength.

Strength training for basketball players should focus on leg and shoulder muscles, with some exercises for the wrists, forearm extensors (triceps brachii) and abdominals. Performing the circuit provided on a Universal Gym set will develop most of these areas. The leg press station can be used to strengthen the quadriceps and calf; the high lat pull and shoulder press stations improve shoulder strength; the quad and deadlift station builds biceps brachii strength; the chest press station strengthens the triceps brachii; bent-knee sit-ups on the abdominal conditioner will strengthen the abdominals; and the hamstrings can be developed by using the thigh and knee machine.

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[2]deVries, *Physiology of Exercise*, p. 26.

A wrist and forearm conditioner is usually attached to the thigh and knee machine. However, if this conditioner is unavailable, an effective substitute can be made easily. Tie a 5-foot rope or string onto an 18-inch broomstick, and tie a light weight (one to five pounds) on the end of the rope or string. Have the athlete roll the rope or string up the broomstick, then slowly unroll it. This action will strengthen the wrist muscles involved in shooting.

Cardiovascular Endurance

Cardiovascular training for basketball should be based on sprints rather than distance running. Interval training is an excellent means of conditioning. The athlete runs 440 yards in 90 seconds or less, then is allowed to rest for 90 seconds. The sprint and rest periods are repeated three more times on the first workout. The number of intervals can usually be raised weekly. Through interval training the prospective basketball player is improving both sprinting speed and rate of recovery.

The three aspects of physical conditioning detailed above can be performed in a variety of combinations. For example, a short jog combined with a few flexibility exercises can serve as a warm-up for interval training. Then strength training can be performed followed by more flexibility exercises for cooling off and relieving cramping or sore muscles.

The first week of conditioning can cause a great deal of soreness. If the athlete continues to train regularly during this period, the symptoms will subside. The coach must emphasize that the athlete is not going to feel this discomfort the entire 8 or 10 weeks of the conditioning program. The coach should require the athlete to record her performance at every workout to check the athlete's progress and document the program's effectiveness.

The pre-season conditioning program is an effective means of enhancing basketball performance. In addition, with some planning the coach not only can use the program to initiate the type of discipline desired in practice sessions but also develop team spirit and camaraderie before the season begins.

A SIMPLE BATTERY FOR EVALUATING PERFORMANCES

LYNDA S. UMFRESS

Lynda Umfress is currently the head girls' basketball coach at Bourbon County High School in Paris, Kentucky. She previously coached at Amory High School in Amory, Mississippi. While serving as the graduate assistant coach for Eastern Kentucky University, she aided in guiding the basketball squad to a 17-3 record and a second place finish in the AIAW Region II championships. She has had extensive experience in sports camps throughout the South.

In an attempt to provide an objective, accurate means of assessing the performance level of a large number of basketball participants, the battery listed below was designed. This battery has been used with great success in sports camps to determine performance level groupings in order to facilitate instruction. The battery may be used by coaches who have a large number of people trying to make the basketball team. It can also be used in physical education classes. Since preparation is so minimal and scoring relatively easy, it would seem ideal for the instructor who wishes a means of pre- and post-testing.

The advantages of this battery include:

- All tests may be administered by one person.
- The battery is limited to the area of one regulation basketball court. (See Figure 1)
- A large number of players may be tested in a short amount of time.
- Since no unusual equipment is required, the battery is accessible to all instructors and coaches with relatively little pre-test preparation.
- All tests are executed in 30-second trial periods.

Description of Four Test Battery

Wall Pass — The performer stands behind a line six feet from a flat wall surface. The score is the number of times the ball is passed against the wall in 30 seconds. The

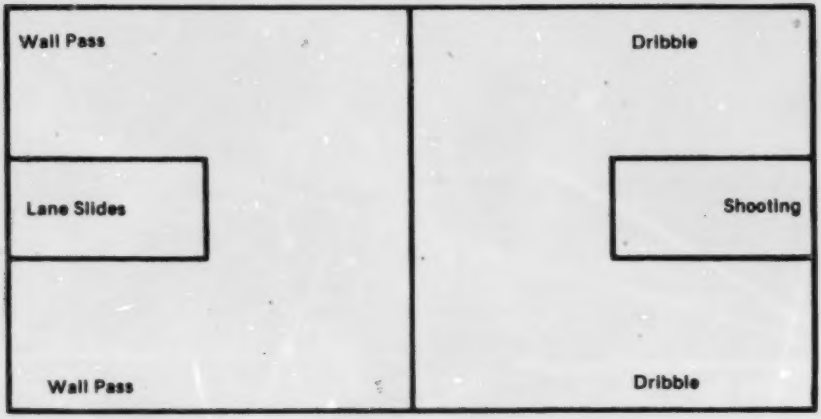


Figure 1.

performer must throw from behind the line but can step over the line to retrieve the ball.

Lane Slides — Facing the basket, the performer starts with the (right) outside foot on the free-throw lane line. The score is the number of times in 30 seconds the performer slides to the opposite lane line and touches it with her/his foot while keeping the shoulders parallel to the basket.

Shooting — Starting in any position, the performer makes as many baskets as possible in 30 seconds. The score is the number of baskets made.

Obstacle Dribble — Four lines, two feet by one inch, are placed at 6, 12, 18 and 24 feet in a row and parallel to the end line of the court. Four participants assume a position by placing their feet on one of the lines. The player being tested assumes the ready position with a basketball by placing one foot on the end line of the court and facing the player-obstacles. On the starting signal, the player being tested dribbles around and through the player-obstacles and back toward the end line as many times as possible in 30 seconds. The player scores one point for each shoulder passed in 30 seconds.

Procedure

The coach should demonstrate all tests prior to starting the battery. Each performer should have a notecard with the performer's name and a space to record scores on the card. The performers should be divided into groups equal to the number of stations available. Each performer is allowed two trials for each test. All performers should conclude all trials for each test before progressing to the next test at the next station.

A central timer gives the start and stop signal for all trials. Each performer should have a partner who will count the score and record it for each trial.

At the conclusion of the battery, the higher score of each trial on each test should be circled. The higher scores should then be added on each card to produce a single total score for each individual. These scores can be ranked in order, with the higher score indicating the highest level of performance and so on.

A SHOOTING ANALYSIS

CATHY BENEDETTO

Cathy Benedetto, former basketball and softball All-American, is in her second year as head coach at Seattle University. From a high school coaching career which included 76 wins against 7 losses and two consecutive AAA State Championships, she guided her college women to a 19-7 season before they were defeated in the finals of the Small College Regionals. Seattle University will be competing in the Large College Division this season.

Beginning players with limited natural ability can become reasonably accurate shooters if they are willing to listen, learn and practice. There is no magic formula that can turn a player overnight into an accurate shooter. This article is designed to help athletes help themselves, if they are willing to take 1,000 shots a week.

Good shooters have the following characteristics in common:

- Mechanical efficiency
- Machine-like execution
- Concentration/discipline
- Determination
- Confidence

Mechanical Efficiency

Mechanical efficiency is learned through constant repetition and the willingness to read books that analyze the entire movement — proper grip, stance, body position, and even more important, the correct application of forces. If an athlete wants to become a successful shooter, she/he must first learn the skill properly. The mechanics can be broken down into fundamental principles that are easy to remember and thus it is possible for athletes to correct their own shooting faults. The fundamentals consist of the grip, aim and force.

Grip. This includes fingertip control with the ball resting on the finger pads, not in the palm. The non-shooting hand acts like a tee in golf, applying no force or follow-through. The fingers should be spread comfortably, with the hand centered on the back side of the ball. The thumb should not be pointed down or to the side, but, using the middle finger as a guide pointing to twelve o'clock, the thumb should be angled towards the ten o'clock position. If the thumb points lower, this will tighten the wrist and inhibit good follow-through with the wrist.

Aim. Every time a shot is attempted, the player must first bring the ball into the shooting pocket. For set shots, the pocket is directly under the shooting eye in the vicinity of the cheekbone. For a jump shot, the pocket is directly above the shooting eye side at the hair line. The shooting pocket is important. To be consistent, an athlete must learn to launch shots from the same location each time.

Squaring up is another important aspect of aiming. The shooter should bring the hips and shoulders around so that they are directly facing the basket. This is vital in eliminating one of the two major errors in shooting — direction, or the ball going off to either the right or left. If hips and shoulders are squared to the basket, the chances of the ball being misdirected on the shot are greatly decreased. Some coaches insist that the elbow be in, directly under the ball, pointing at the basket. This will also ensure a direct flight to the basket. However, it is anatomically unnatural and uncomfortable to force the elbow in that far. Rather, the elbow should be slightly out. If a plumb line were attached to the wrist, the elbow should be approximately three to four inches out from the line.

To ensure proper arm action, think in terms of the middle and index finger going through the eyebrow on the shooting side. The eyes should be glued to a specific spot on the rim or backboard rather than focused on a general target.

Force. Three parts of your body are involved in projecting the ball to the basket — the wrist, the forearm and the legs. Foremost among these is the wrist, for it gives the ball the natural spin that results in the 'soft touch' characteristic of excellent shooters. Without proper wrist flick, that hard snapping follow-through, an athlete can never become a good shooter. The forearm directs the ball upward in flight while the wrist flick propels the ball forward to the basket. The upper arm is not involved in the set shot or jump shot; if it is being used, the shooter is throwing the ball, not shooting it. Leg power provides the distance necessary in perimeter shooting. Usually, the legs and forearm apply forces at the same time, with the wrist snap coming last. After the ball has been released, the player should finish in picture-perfect form every time: arm straight over head, wrist flopped forward, and head still.

Machine-like Execution

Once an athlete has the mechanics correct and can execute them, it is necessary to spend hours of repetitious practice making the shot machine-like. The athlete's form, body position, arch, etc., should not vary. The shot should become automatic so that the player shoots without thinking. Doubt and pressure are not given a chance to seep into the head, destroying concentration and confidence.

Concentration/Discipline

All of the preceding techniques require discipline. For a shot to become truly mechanical, a player must shoot thousands of shots, taking the time and effort that the player might rather spend on something else. Even when practicing the shot, the athlete must concentrate on each shot taken. That means no haphazard shooting in a random manner, but spot shooting, keeping made/missed percentages in practice as well as in games. Some shooting practices should be conducted alone or with a partner, preferably in a quiet area with no distractions or talking.

Determination

Even with the first three characteristics, an athlete may fail to perform effectively in a game if she/he lacks determination. Determination is a must if one hopes to score against a good defensive player. The athlete has to want to intimidate the defensive opponent. If the opponent blocks the player's shot, the latter must come right back and make the opponent rue the attempt to stop the player. An athlete must be relentless in her/his attack.

Confidence

Determination goes hand in hand with confidence — an athlete's belief in her/his ability to score against anyone. Confidence, however, is the last characteristic an athlete develops because it hinges on the first four principles. Until the player develops an efficient, machine-like shot and has the discipline, determination and concentration required, the player cannot expect to be confident when she/he gets the basketball and starts to shoot. The solution is obvious. Develop the first four characteristics and your confidence will grow.

Shooting Flaws

Not all individuals really want to refine their skills. Sometimes they are basically not coachable, other times there may be psychological barriers that prevent them from mastering a skill to the point of near perfection. Some of the most common flaws are:

"*NBA Phenomenon.*" How do you explain a Walt Frazier who shoots quite accurately, yet does it all wrong? As pros, NBA stars have spent years in refining a skill. Right or wrong, the practice they have put in is rewarded with improved accuracy. Still, they would be even more accurate if they shot properly, but the bad habits are so entrenched that relearning is nearly always impossible.

Contentment. This is the athlete who is satisfied with her/his performance and has little or no desire to improve, even if the athlete is far from reaching her/his potential. The athlete has reached a point of comfort and laziness — a dangerous combination to an athlete in pursuit of true excellence.

Impatience. This is probably the major flaw. Athletes must remember that when relearning a skill, they will probably get worse before they get better. Correction should take place in the off-season when the player has time to allow the corrections to improve. Do not expect immediate progress. Consider this: you have spent a lot of time learning it improperly. You must now spend a great deal of time relearning.

A second example of impatience deals with distance in early season shooting. Never start in the early season by practicing at the maximum range you shot from at the end of the previous season. Your muscles (force application) need time to re-acquire their tone, efficiency and timing. Move in and shoot at a range where the ball can get to the basket easily. If you are too far out, you will probably throw the ball, thus reinforcing bad habits instead of good ones.

A final example of impatience — lack of realism — is felt by the athlete who becomes frustrated when a few shots are missed in a row. This destroys confidence and blinds a player from analyzing what the real problem might be. It is also annoying to teammates whose best performance might fall short of your poor performance. Since a good shooter usually misses half the time, it is unrealistic to expect perfection, to never miss. As humans, we are all capable of greatness and failure — thus, if a few shots are missed, keep the faith, pass the ball and remember that the game always gives you another chance.

Taking Bad Shots. Good shooting characteristics will do little good if the athlete insists on taking bad shots. This can occur in a variety of ways. Some players shoot beyond their range, causing the percentages to go against them. Others rush their shot, shooting before they are really set, which lowers accuracy. Still others insist on shooting in a crowd, and though the mechanics may be efficient, taking that shot hurts team play and creates resentment. In this situation, the individual needs to work on moving without the ball so that when the player is passed to, she/he is more open and away from the crowd.

Shooting, a highly refined skill requiring considerable time and attention, is one of the best tests of an athlete's willingness to learn because it requires so much attention, concentration, practice and self-discipline. It is hoped that this analysis will help athletes improve their skills and make the coming season more successful and challenging.

"CONTINUITY" OFFENSE

LOIS A. KLATT

Lois Klatt received the B.S. degree from West Chester State College, West Chester, Pennsylvania and the M.S. degree from the University of Wisconsin, Madison. Her recently earned doctorate in biomechanics is from Indiana University, Bloomington. Lois taught physical education and coached various sports at Milwaukee Lutheran High School and is currently an associate professor in the physical education department at Concordia College, River Forest, Illinois. Her basketball experience includes high school, collegiate and AAU participation; officiating at state, regional and national levels; and coaching at the high school and collegiate levels.

Whether the competition is at the college or high school level, a common question voiced by all players is "Where do I go?" Practice sessions of 2 v 1 and/or 3 v 3 do not usually create problems because space is readily available, but when the team begins to play the official 5 v 5 game, and 10 players move throughout the offensive court, space is at a premium. The lane becomes congested, players stand still, and in some instances the ball seems to stop moving.

A good offense is based on fundamentals and teamwork. The offensive pattern is determined mostly by what defense the opponents are playing. It is simple to determine if a team is playing a player-to-player defense or a zone defense. The first time down on offense, the first player to pass the ball should go through the middle of the defense: if an opposing player follows the offensive player all the way through, the team is in a player-to-player defense; if no one opponent follows the player through, but different opponents guard the player on the way through the middle, the opposing team is in a zone defense.

A well-patterned and planned offense can break up any type of defense. Too many different offensive patterns create confusion. It is difficult to master one offensive pattern, let alone two or more. Playing a continuity offense makes it possible to learn one pattern with a number of options or two basic patterns since the continuity becomes the natural, continuous thing to do.

A continuity pattern offense must continue in all the options. Continuity flows regardless of which option is employed. Offense must be fun for the players and coach and should involve all players (team concept). The fundamental plan underlying the continuity offense is that, no matter where the ball goes or where it is passed, the player with the ball will have the opportunity for continuous multiple options with the four remaining teammates. The purpose is to promote a continuous flow and movement of both the players and the ball, resulting in possible scoring opportunities with almost every maneuver.

The following continuity patterns are only suggestions; the coach may want to develop her/his own natural continuity offense.

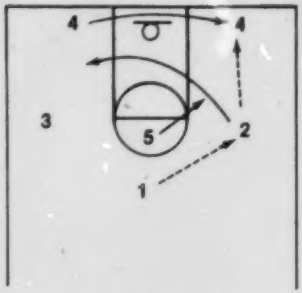
1-3-1 Continuity

Players/Their Positions

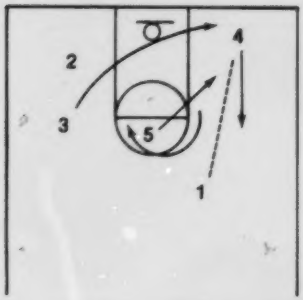
1 point guard, 2 forwards, 1 high-pivot post, and 1 low post. The point (1) and pivot-post (5) players remain in their general location while the two forwards, (2) and (3), and the low post (4) rotate and/or exchange positions constantly.

Pattern

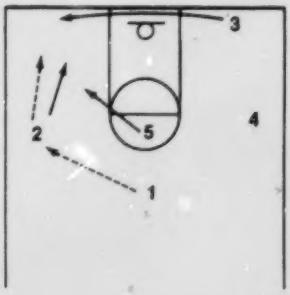
(1) passes to (2).
(4) cuts to ball side wide, behind defense.
(5) cuts to ball side of key.
(2) passes to (4).
(2) cuts toward basket and across to opposite side.



(3) cuts through key to opposite baseline.
(1) moves over to ball side.
(4) passes back to (1) and moves up to wing position.



(1) continues over to the top of the key and passes to (2). This continuity is repeated to the opposite side.



Players should never stand in one place. There must be constant movement so that the passing lanes will be open. Strive for good floor balance. There must be a player behind the defense and in the free-throw line area. The overload principle must be followed, with players cutting constantly. Keep the continuity so that continuous movement of all players can take place. The 1-3-1 continuity can be used against all player-to-player and zone defenses.

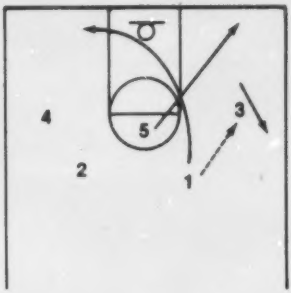
2-3 Continuity

Players/Their Positions

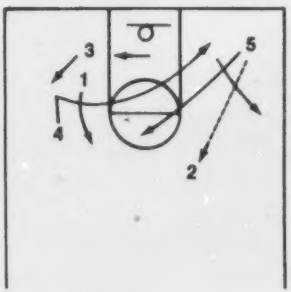
2 guards, 2 forwards, and 1 high-pivot post. The two guards, (1) and (2), remain in their respective guard positions but exchange sides of the floor; the two forwards, (3)

and (4), maintain their respective responsibilities but exchange sides of the floor; and the high-pivot post (5) moves from the free throw line to base line.

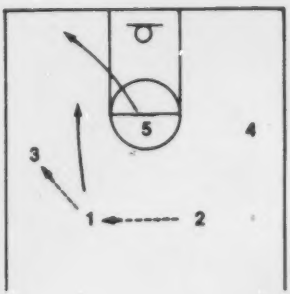
Pattern



(1) passes to (3).
(5) cuts to base line on ball side.



(1) cuts through key to opposite side.
(3) passes to (5).
(3) breaks toward basket and to opposite side through base line.
(4) breaks across free throw lane.
(5) passes back out to (2) and back up to the original free-throw line position.



(1) continues on to the top of the key, opposite side (3) pulls wide.
(1) passes to (3) and the continuity is repeated to the opposite side.

The 2-3 continuity can be used against all defenses but works better against a zone defense.

2-2-1 Continuity

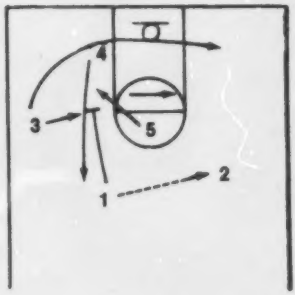
Players/Their Positions

1 point guard, 2 forwards, 1 high-pivot post, 1 low post. All players exchange

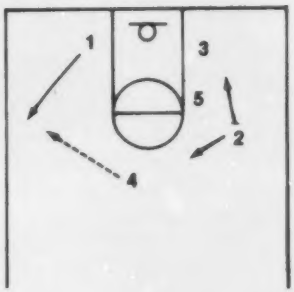
positions with the exception of the high-pivot post (5) who slides across the free throw line.

Pattern

(1) passes to (2).
(2) drives one-on-one, weak side.
(5) moves to high pick position opposite weak side.
(3) breaks low or high off the double pick by (5) and (4).
(5) slides across high key, possible pass, slot (1) breaks down for pick for (4).
(4) takes (1) pick, breaks to point guard front position.



(1) pulls wide for return weak side pass.
(4) passes ball to (1) and the continuity is repeated to the opposite side.



The 2-2-1 continuity can be used for all defenses but works better against a player-to-player defense.

The patterns show the movements of the players and the ball. They do not show every opportunity to pass, to drive one-on-one, to back door, or to shoot. When the opportunity for a shot exists at specific times during the maneuvers, the decision to shoot and which shot should be taken depends upon the judgment and shot repertoire of each player.

Other play options can be utilized from any of the described continuity play patterns. Options to consider include a weave, clearing of the weak side, and back door. Use one of the continuity patterns suggested above or develop your own formation where play can be natural and continuous without rearranging the players. With this kind of continuity play, you and your team can look forward to a "moving," fun, and scoring season.

BREAKING A ZONE PRESS

EDITH E. GODLESKI

Edie Godleski is the women's basketball coach at Indiana State University, Terre Haute. She received her B.S. degree at the University of Wisconsin-LaCrosse and her M.A. degree at Michigan State University. Since coaching at Indiana State, she has registered her 100th win against 41 losses. She has a .741 winning average in Midwest Regional Tournament competition.

Often players will push the panic button if a zone press is thrust upon them. If principles or rules are followed in all situations rather than a definite X or O assignment, a zone press will not bother a team. Initiative on offense is a quality every coach must look for in a player and then appreciate it after it is found. A strict pattern will stifle the player who reacts to situations naturally and has the inborn court sense.

There are two basic principles necessary in breaking a zone press —*fundamentals* and *floor balance*.

Fundamentals

1. All passes must be short and snappy. A good rule is having all passes average 15 feet in length. *Never* pass the ball parallel. A diagonal movement to the ball will allow a pass to be completed.
2. Meet all passes aggressively. The receiver should have the outside hand out as a target.
3. Fake first, then pass.
4. The player should look up court before stepping out-of-bounds with the ball. A speedy pass inbounds before a press has the opportunity to get set will break the defense's momentum.
5. The use of a dribble against a zone press, if used at all, must be used effectively, such as after a trap has been broken, or to move diagonally to the other side of the press.
6. If the ball handler is being double teamed (trapped) in the backcourt, the player must never turn her/his back to the basket. To dribble past an opponent, the ball handler must push the dribble far in front of the opponent or change hands when dribbling to prevent the defense from coming from behind and surprising the player with a quick steal.

Floor Balance

1. Maintain three passing lanes. The strong side is lined up with the ball; the weak side is moving to the ball diagonally; and the middle is a safety valve and is in line with the ball.
2. Always keep a trailing player who can dribble well, pass and keep cool. This usually is a forward who will come from the rebounding position and throw the ball inbounds. The rule for this player to remember is to stay 15 feet behind the ball until it gets into the forecourt. Zone presses never resume responsibility for the person who has inbounded the ball. This "safety valve" can then be used to reverse the ball or to pass it down court to an open player.
3. Players must stay spread. Only one player (the best ball handler) is allowed to go anywhere on the court. The others must stay in their assigned territory. This will keep the players spread across the court in any alignment you prefer.

4. After passing, a player must go away from the pressure.
5. The ball should be returned to the best ball handler as quickly as possible if that player has had to give up the ball according to the fundamentals set down.
6. Get the ball past the front line of the defense because most zone presses weaken after this occurs.

There are several suggestions as to how to implement these principles during practice sessions. First, walk through the concepts, then proceed at half-speed. Second, employ slow defenders and do not allow them to use their hands. To instill additional confidence, practice against the weakest reserves and with a clock to prove there will be ample time to bring the ball into the front court and still set up a workable offense.

Before the season begins, set aside 20 minutes of a practice session to teach these principles. You will know who your best ball handler is to get the ball down court. The selection of the safety valve, the person who inbounds the ball, is equally important. This is the player who will not reach for the panic button and who will keep the offensive flow in control the entire time the press is on. This player must be found in the practice sessions and takes the most time to discover.

Once the basic principles have been taught, review them with your players for 10 minutes every one or two weeks, and their chances of successfully breaking a zone press will be greatly enhanced.

FREE THROWS: COUNT ON THEM

JO STREIT

Jo Streit is the former girls' head basketball coach at Joliet West High School, Joliet, Illinois, which won the 1978 Illinois State Championship with a 29-2 record. Her six-year career record of 103 wins and 10 losses includes 5 consecutive conference championships and 10 other tournament championships. She was named 1978 Illinois Woman Basketball Coach of the Year. Jo now lives in Phoenix, Arizona where she is pursuing graduate work.

When explaining to players the techniques involved in making a free throw, it is imperative to emphasize an awareness of what each body part is supposed to do. Using key teaching phrases helps players learn more quickly.

First, check whether the player imparts backspin on the ball when shooting. If there is no backspin, this can be corrected by putting the shooting hand in the middle of the ball with the elbow pointed downward. Use the valve on the ball as a guide and have the forefinger of the shooting hand aligned with the valve. The non-shooting hand is on the side of the ball and slightly behind it. Now have the player "pop" the ball five to six feet straight up into the air and catch it. On the release, the player should feel the forefinger leave the ball last. The forefinger should point up and out in the direction the ball is to go. The wrist should be flexed and the other fingers spread apart. Emphasize that the non-shooting hand only helps to guide the ball and must not push against it, otherwise the ball will be pushed off to one side. The ball, if correctly released, should spin backwards. Have the player continue to "pop" the ball straight up until backspin is successfully applied to the ball.

Next, pop the ball up and out to a partner standing approximately 10 feet away. Tell the player to hold the follow-through until the partner catches the ball. The shooting technique thus far should look like this: (1) shooting hand centered on the ball with elbow down, (2) bend the elbow and bring the ball into the body chest high, (3) as the arm straightens, the wrist flexes downward, and (4) the forefinger points to partner as the ball is released with backspin. Do not go beyond this point until your players understand and feel the importance of the correct release (backspin) and follow-through. It is important to have them practice "popping" the ball to themselves or a partner or against a wall 50 to 100 times daily. At home they can practice popping it to the ceiling as they sit in a chair in front of the television or lie on their bed.

Now, have the player move to a basket and continue to work with a partner. The shooter stands three to four feet directly in front of the basket with shoulders square to the basket. The partner is positioned under the basket. The shooter aims over the front of the rim with feet pointed straight ahead (shoulder width apart) with the same foot as the shooting hand slightly ahead of the opposite foot. (For example, a right-handed shooter positions the right foot slightly ahead of the left foot.) The player's knees should bend or flex every time the player shoots, but the ball should not be lowered as the knees bend. The shooter should not be allowed to bounce the ball before shooting. Rather than watching the ball in flight, the partner should observe the shooter's stance, shooting hand, wrist flexion, fingers, follow-through, and knee flexion. The player shoots from the same spot until a basket is made, while the partner analyzes and corrects the player's mistakes. The shooter should be instructed to hold the follow-through until the ball touches the rim. (The shooting arm, hand, wrist and fingers remain suspended or "frozen" until the ball hits the rim.) If the backspin and follow-through are satisfactory to the partner and the basket is made, the shooter can

then move back six inches and shoot again. All of the above rules apply every time a shot is attempted.

Have the player continue shooting and moving back six inches after each basket until she/he is about halfway to the free throw line. At this point, remind the shooter that legs play an important role because the farther away a player is from the basket, the more knee flexion and push-off from the floor are needed to get the ball to the basket. Do not permit the shooter to jump off the floor. Instead, teach the player to bend her/his knees, push from the floor, and go up on the balls of the feet or toes. Using these techniques, the player is balanced and can direct the ball more accurately and consistently.

The shooter continues to shoot and to be analyzed by the partner until the shooter reaches the free throw line. The partners then exchange duties and the new shooter begins at the basket, working back to the free throw line.

When observing a player's free throw techniques, stand behind or directly in front of the shooter underneath the basket. When standing behind, check the stance, shoulders squared to the basket, knee flexion, and the hand positioning on the ball. Also watch to see where the ball hits the rim. When standing in front of the shooter, check the hand, fingers and wrist on the follow-through as well as the backspin being imparted on the ball. If the ball hits the front of the rim and falls short, bending the knees more and pushing off from the floor will help. If the ball hits on the right side of the rim (right-handed shooter), the ball is being pushed too much with the non-shooting hand instead of just guiding the ball, or the shooter is following through to the right instead of directly ahead. If a right-handed shooter hits consistently on the left side of the rim, check the hip rotation, or twisting left, which brings the right hand across the left side of the body causing the follow-through to go left. This twisting can be corrected by having the player "freeze" or hold the follow-through straight ahead (as if reaching out over the front of the rim) until the ball hits the rim or net. Also remind the shooter that the shoulders should squarely face the basket before and after the shot. If the ball is hitting the backboard, remind the shooter to aim over the front of the rim.

If these suggestions are followed, you will soon have noticeable improvement in your team's free throw percentages. But more important, your players will be able to analyze each other's mistakes and make corrections for one another — yes, even at the free throw line during a game!

DEVELOPMENT OF THE POST PLAYER

ROY BOWLING

Roy Bowling has guided his Laurel County High School girls' basketball team to a 115-7 record during the past four years. He has captured four district, two regional and two consecutive state titles in Kentucky. As the boys' varsity and junior varsity coach at Laurel County, he compiled a 138-22 record over a nine-year span. He has developed four all-staters – one center, two guards and one forward.

The most important component of a high school basketball team is a strong post player. Only rarely will a team without an outstanding pivot capture a major championship. Teams which dominate from year to year in various areas inevitably feature a powerful center.

Observations over the years have led to the conclusion that the low post is preferable in every instance over other center positions. The defense must feel a threat "low" on every play. When the inside is threatened, the defense often tends to sag toward the goal, thus opening the short jumper for the guards. Further, this low position by the center allows for more offensive rebounds from the tallest player.

Development of the post player takes a great deal of time, and the earlier one spots a potential center prospect and begins to work with the player, the better. Ideally, post candidates should be physically strong, not afraid of contact, possess good leaping ability and have the desire to play.

While height is an asset, high school coaches are not always blessed with tall players. Strength and dedication, however, can often overcome the four- to five-inch height advantage a pivot player must face.

After finding a potential center, the coach must work toward development of the following aspects:

- *Good Foot Work* — The larger or stronger player often is awkward. Simple drills in foot movement with and without the ball are a must.
- *Proper Hand Position* — If the defense is behind the player, the shooting hand of the pivot must be high overhead as a target for the passer. With the defender on the right side of the post, the left hand should be extended high and away from the defense. The opposite is true on the left side. With the defense in front of the post, the pivot must ask for the ball. Again the hand is high overhead.
- *Fake and Go* — A simple fake left and go right or fake right and go left is enough provided the fake is executed correctly. A fake that is too quick does not give the defense time to react. A player must also learn to go to the basket with power along with the fake. These are not two different movements.
- *Shooting* — Obviously anytime there is a distinct height advantage, the ball should be moved inside. However, getting the ball to the center is not enough if the pivot is an inconsistent shooter.

When the post player has sufficiently mastered the above, she/he should work toward the development of two other characteristics:

- *Shooting From the 10- to 12-Foot Range* — If the player's range is limited, the defense will counter by sagging when the post is forced out of the low position to relieve the ball. The ability to hit from this range keeps the defense honest.
- *Dribble and Go to the Basket* — When the post is forced from low to high or down the baseline, the taller defensive player often prevents the outside shot. The smaller center must then use her/his quickness and strength to drive for the basket.

The more sparingly these two movements are used, the better. Ideally, the ball should move inside to low post as often as possible. The post comes outside only when absolutely forced to do so, or when clearing the area for a teammate's drive, or to assist in gaining position on her/his defensive player low. A low post is the ideal, and this is what the coach should emphasize when working with a center.

BASKETBALL AUDIOVISUAL AIDS

PATRICIA A. REAGAN
University of Utah
Salt Lake City

Films

The Great Game of Basketball. 27 min., color. Free rental. Association Films, Inc., 866 3rd Ave., New York, NY 10022. Jack Twyman discusses elementary basketball skills — pivot, pass, shooting, guarding. Male players demonstrate.

Offensive Drills (Basketball with Bubas). 14 min. Rental $8. Association Films, Inc., 866 3rd Ave., New York, NY 10022. Presentation of offensive drills. Game shots, game-simulating drills and demonstration shots.

Women's Basketball with Cathy Rush. 14½ min. Rental $8. Association Films, Inc., 866 3rd Ave., New York, NY 10022. Part I — Conditioning with special exercises for tone, suppleness, quick reflexes and stamina. Part II — Drills and skills for ball control, accuracy, passing, dribbling and shooting. Women players demonstrate.

Filmstrip

How To Warm Up. 35mm, color. Rental $8.50. Association Films, Inc., 866 3rd Ave., New York, NY 10022. Specific exercises for warming up and warming down.

Product

Sharp Shooter. This training device, designed to improve coordination and aiming accuracy, is a ring that fits on a basketball hoop. Available from Poudi International, P.O. Box 1552, Altadena, CA 91001.

Film Distributors

Champions on Film
74 S. State Circle
Ann Arbor, MI 48104

Free Loan Films in PE
Modern Talking Picture Service
2323 New Hyde Park Road
Hyde Park, NY 11040

Texture Films
1600 Broadway
New York, NY 10019

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Los Angeles

PATRICIA A. REAGAN
University of Utah
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A basic, thorough book of techniques and theories for women's five-player basketball. Includes in-depth coverage of special situations such as out-of-bound plays, free throws and jump balls. Contains numerous diagrams and photographs of offensive and defensive play of the man-to-man, zone and press.

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Volleyball

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SETTING TACTICS AND THEORIES

DOUG BEAL

Doug Beal has played on the National Team from 1970-1979. He was chosen USA Player of the Year in 1975 and has been named All American Player six times. He coached the National Team 1977-1978 before returning to play with the team as a setter-hitter. While coaching at Ohio State University, he was honored as the Midwest Coach of the Year. He is presently playing with the National Team while completing his doctorate at Ohio State University.

Because of the nature of volleyball and the number of contacts afforded the setter, this player assumes the most pivotal position. Few teams in football reach their potential or have any measure of success without a great quarterback; likewise, few volleyball teams can perform to potential without the services of a good setter.

Set Selection

A good setter must clearly understand her/his role on the team and how best to f[illegible]tion on the floor. The coach must constantly remind and condition the setter to make appropriate choices and selections. The setter's primary role is to *always* deliver a "good" set, i.e., one that is hittable for each attacker in any situation. The good set will give the attacker optimum possibilities to succeed on her/his own skills.

If the setter can always accomplish the "good" set, then the role expands to being a "smart" setter. The smart set will match a team's strengths to the opponent's weaknesses, feed the "hot" attacker, take advantage of what the offense does best, and effectively carry out the coach's thoughts and plans. If you have a player who has progressed to being a smart setter, you are a great coach. Your setter is probably not directly winning for your team, but she/he is *never* losing for your team either.

The ultimate stage in the development of the setter hierarchy is assuming the burden of defeating the block by deceptive setting. The setter uses deception in an effort to allow the hitters to work against less than the well-formed two- or three-player block. This is far and away the lowest and last priority for the setter. A tricky set which fools the block but is not hittable is worthless. Generally, this level is beyond the skill of most setters and will only lead to unnecessary errors. The offense must always live within the skills and abilities of its players and especially its setters. One of the cardinal principles of coaching is to never ask players to perform skills or tactics beyond their abilities. Existing skills are used as the foundation upon which to build new skills.

Setting is very much a percentage skill that, it is hoped, will lead to minimum errors in your offense. Therefore, be good (technically perfect) first, smart (perceptive) second, and then maybe . . . occasionally, tricky.

Setting Rules

A coach must define for the setter the rules to follow on each set regarding the types of errors expected and those which are permissible. There can be some general concepts here, but they must be modified to fit the team's offensive concepts and the particular range of offensive maneuvers the team is employing.

Some examples:

- Never pinpoint a set — always give the hitters a range in which to expect to

receive the ball. The range must include a width along the net, height variation and some speed changes.

- Generally, never underset the ball or set too short. It is always better to overset and go too high to allow the hitter a good swing at the ball.
- Usually a set, especially a fast center set, should be too slow rather than too fast.

Most errors in setting, and therefore the offense, occur when the setter tries to pinpoint the set. Rather than this, it is far preferable for the setter and attacker to work together to establish a zone for each specific set and play. This practice will provide a high degree of success.

High sideline set. There should be a zone that *starts on the sideline* and extends into the court for several feet (maybe up to 10 feet). This set should never travel outside the antenna or be set either over the net or too low. Unfortunately, the high outside set is often pictured landing on the sideline rather close to the net. If this is the goal, it is likely that many errors will be made by pushing the set too wide or over the net. See Figure 1.

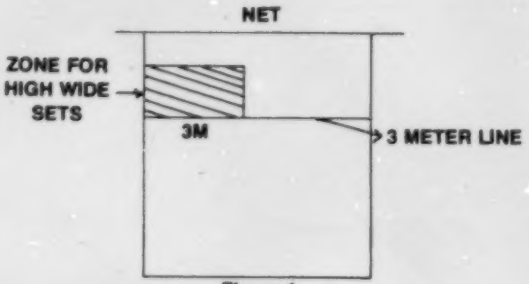

Figure 1.

Common errors on this set are setting it too high or deep or too far inside. These situations can be compensated for by the hitter.

Fast center set (a "quick" or "1" set). This set, normally delivered to the middle attack of a three-hitter offense, is made after the hitter has already left the ground. The set should never cross the net without passing the hitter's outside shoulder. It must be high enough to force the hitter to reach her/his maximum and be made in front of the midline of the hitter's body so that if the set is too high or the hitter misses it, the ball can still be saved. This is obviously at the opposite end of the spectrum from the high-wide set and is more difficult to perform without error, but basic rules still apply. See Figure 2.

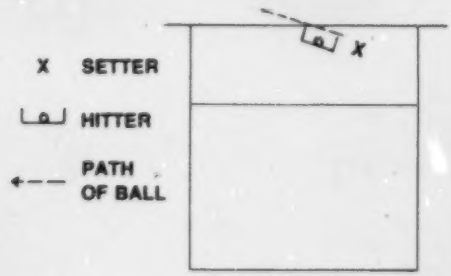

Figure 2.

If the set is too low, crosses the net in front of the hitter or is set across the hitter's body before it is hittable, many errors will occur. Otherwise, this can become a reasonably high percentage play.

This is only a brief look at what is called percentage setting. The rules, as stated above, are made by the coach to suit the offense and the players' skills. These are very positive points about which to remind setters during time-outs.

Setter Training

Development of a skilled setter requires a great deal of specialized training. The setter, more than any other player, must become acquainted with all situations and the play alternatives of each. The setter controls more of the game than any other single player and thus receives more attention than her/his teammates. The coach should keep in mind the following concepts in helping the setter develop and refine skills.

Repetition. Since repetition is an important key to success, the setter must touch as many balls per practice as possible. If all players on the team perform all skills equally, they are not being trained effectively. The setters must set, more than anything else; center blockers must spend their greatest time blocking; the big hitters need most practice on hitting; etc.

Positional variety. The setter must learn to set from all body positions. This means setting while jumping, running forward, running backward, and rolling on the floor. It also includes underhand and one-hand setting, setting balls coming out of the net, backcourt setting and setting spinning and fast balls as well as balls coming from very high. The possibilities are almost limitless. It is crucial that the setter react instinctively to any situation during the game. A secondary benefit of having the setter trained to emergency setting tactics is that the hitters become familiar with attacking these sets and thus learn the setter's capabilities.

Setting tactics. The setter must be trained according to game situations by being presented with drill situations and allowed to react to them. For example, it is very good to set left when the setter must move to the right and vice versa. The middle blocker usually will anticipate a set in the direction the setter is moving and it is a good tactic to make the blockers move a long way. The setter should be trained to "see" the center blocker by having the setter drill with the center blocker as the latter is making designed moves. The setter should be instructed to set the opposite direction from where the blocker moves. If the setter is forced to jump set, she/he should set anyplace but the middle. Such tactical considerations must be trained.

Spatial orientation. The setter, especially, must know where she/he is at all times. There are several points to consider in this training. First, the setter must be conditioned to see the ball, lose sight of it, find it again, and then set. These drills involve the setter seeing the ball, then executing some skill (dive, roll, jump, spin, etc.), finding the ball again and setting. Next, the setter must learn to start blind, then find the ball after it is in play and set. Another type of spatial orientation concerns the setter's ability to know all the dimensions of the court, especially from the perimeters and beyond. Essentially we are talking about making a long set, which is accurately placed, after having moved a great distance.

To complete the training, the setter must be given proper authority and control, such as the freedom to call plays and run the offense or make appropriate changes if the hitters are to call the plays. The setter must establish an effective range so that the hitters will know which balls the setter will set and which they must set. The setter must quarterback the team jointly with the coach.

Technical Aspects

Setting is a complex motor skill that the slightest miscalculation can undermine. Below are commonly abused basic skills crucial to setting and suggestions for correcting them.

Stopping when contacting the ball. If the ball is not going where the setter wants it to or if it drifts or comes up short, it is likely that the setter is moving through the set. Certainly this is avoidable at times, but usually it isn't. By all means the setter must be stopped at the moment of contact.

Facing the target, especially with the upper body (shoulders). If the ball is consistently off in one direction, the setter's alignment should be checked. Good direction starts with the feet, but shoulders are more critical. The feet dictate motion, the shoulders direction.

Contacting the ball at a high point, i.e., in front of the face above the eyebrows. This is critical for a consistent release and the ability to go in every possible direction with the ball. Whereas a consistent high position allows the hitters to accurately judge the speed of release, inconsistent contact points result in different trajectories to the same sets and poor timing for the hitters.

Releasing the ball from the setter's midline, especially when the ball is passed to the setter close to the net. The common practice of reaching out to set the ball and contacting it before it arrives at the setter's midline causes the ball to jerk and a set that will be either too tight or cross the net. However, a setter with good hand absorption will rarely have this problem.

Making the set off the back foot. The outside foot (farther from the net) is normally the back foot. The set should be made off the outside foot, actually pushing through the ball to maintain an effective line of force from the floor, through the total body, to the point of ball release. Using the foot farther from the net causes a slight drift toward the net, the type of ball much easier for the spiker to hit. The setter must become comfortable with this foot position so that the feet will be planted correctly every time.

Extending the arms completely on every set. If the ball is released with the arms still bent, it has been "jabbed" and the arms have not effectively followed through. The full follow-through will greatly increase accuracy.

It is hoped that this discussion of setting has provided some insight into the complexity of the skill. A team rarely exceeds the abilities of the setter, its most critical player. There are no absolute rights and wrongs, only the players' abilities to perform efficiently and successfully. The guideline should always be to try to maximize the performance of each individual on the team.

TEAM: CONTENT AND PROCESS

CHUCK JOHNSON
MARV DUMPHY

Chuck Johnson is an associate professor of education at California State University at Chico and on the staff of the USVBA and the Olympic Development Sports Camps, Inc. He has been a consultant to the USA Men's National Team and the Pepperdine University team and headed the USA delegation at the Olympic Qualifying Tournament in Rome in 1976. He has been teaching for 14 years at the junior high, high school, and university levels.

Marv Dumphy followed an outstanding playing career at Pepperdine University by assuming the head coach position. He was instrumental in Pepperdine's rise to national prominence as the 1978 NCAA Champions. The author of numerous articles and a book, Volleyball, *he is currently pursuing a doctorate in psychology and sociology of sport.*

How many times has your season been less successful than you expected, your team less together than you wished? Have you seen times when your team did not show the unity that could have meant a more successful experience for you and your players? Most coaches will have to answer "yes" to all of these and most of them realize that the problem on those occasions was not lack of skill or training. The answer, therefore, cannot be more skill training. Coaches must approach this kind of problem from a different viewpoint — a content/process point of view. Briefly, the content/process perspective stipulates that successful coaching involves not one but two equally important dimensions. The first, the content dimension, is usually attended to: the drills, skills and the "X's" and "O's" of the game. The second, the process dimension, involves dealing with the personal needs of each player so that the team can work together as a cohesive unit.

Individuals on teams have particular concerns from the outset regarding affiliation, influence and competency. Initially, team members are concerned about how they will be accepted and what they must do to be included as a member of the team (affiliation need). Will they be embarrassed if they make an error, ridiculed if they take a risk and fail? They are seeking psychological safety or trust on the team. Next, players need to influence some dimensions of their team life. They are concerned with the amount of power they have in the team setting, how much control they have over themselves and others. Finally team members want to be competent in the content, in performing well in their sport. To the degree which affiliation and influence needs are met, team competency-content is positively affected.

Cliques and/or coalitions of players are typical characteristics of teams with affiliation need deficiency. Researchers are finding that on teams where cliques exist the following behavior is typical: volleyball setters tend to set to their friends; quarterbacks tend to pass to clique-mates; guards tend to pass to their friends. Thus, the guard and quarterback look first to friends rather than to any open players. As a result, the other players become angry or upset, causing dissension which affects good play.

Negative remarks about drills or behavior that approaches insubordination can be interpreted as attempts to influence the direction of the team. If coaches don't provide for players to influence the team in a positive manner, teams will do so in a negative one.

Coaches concerned with the process dimensions of their teams need to plan an organized series of activities to deal with process to increase the likelihood of cohesive, tight-knit teams. A process program should begin the first day of practice and continue through the championships. Certain days can be scheduled throughout the season where affiliation and influence needs are dealt with, maybe to the point of sacrificing content.

Meeting affiliation needs can begin with activities designed to help team members know each other better. Coaches can design the workout to the extent that all players, regardless of ability, position or year, somehow participate on an equal basis with their teammates. For example, a coach can designate warm-up partners, weight-training partners, cool-down partners and/or running partners and change the pairings throughout the year.

Influence needs can be achieved by allowing players to lead warm-ups and cool-downs and to be involved in certain decision-making opportunities. This is a crucial area in which coaches have to decide how much influence players will have in their team life. Some coaches feel comfortable allowing players to decide and participate in the enforcement of rules. The main point is to provide opportunities for players to influence the team in a positive manner.

Team cohesion and unity are affected by a variety of process factors — they do not develop automatically. Process needs must be nurtured and developed by the coach who understands and incorporates her/his knowledge into practices and season planning. With this nurturing, content will come easier and be more lasting.

TIME OUT

CLARE MORELAND

Clare Moreland is in her third year as head coach of the Cincinnati Volleyball Club which won the Region 4 USVBA Women's AA Championship in 1978. She has played USVBA and collegiate volleyball for 10 years and has conducted numerous clinics for high school and adult players. She is a Regional USVBA official and is a high school Federation official. She is presently completing a degree in business at the University of Cincinnati.

"Time out." Two words which always mean a team is in trouble. Many things could have gone wrong. The game plan might be ineffective, the hit or set selection could be poor, or perhaps the team is just "mentally" out of the game. In all instances, it is essential that the coach react quickly to the situation and give the team the additional information and advice they need to regain, or in some instances, gain, the momentum.

When to call time-out is a decision a coach must be prepared to make at any point during the game. It the early part of the game, it is important to call a time-out after the opponent has scored four consecutive points by serve or block in order to break the opponent's momentum, relax the players and give them instructions on what they are doing wrong — individually or as a team. At other points during the game and depending upon the situation, a time-out should be called when the team becomes disorganized or confused or if they are beginning to lose their momentum. Also, the coach should be prepared to call time-out if the opponents have changed their tactics with success and the players cannot make the necessary adjustments on the court.

Before calling time-out the coach must understand what is going wrong with the game. The first thing to look at is the game plan. Is it effective in light of the opponent's game? Is the team being blocked because the setters are not isolating the blockers? Or are the setters setting the ball too close to the net? Are the hitters being dug by the defense? What defense are the opponents playing? Where are the "open" areas? Is there a mismatch between one of the coach's weaker blockers and the opponent's strongest hitter? Is the team serve reception too deep or too shallow? The coach must be prepared to give concise, quick and constructive instructions to the team on how to correct its play and increase playing efficiency in each particular situation.

A coach should speak calmly to players, not shout, and relax them during the time-out. The coach should know each of the players and how they will respond to criticism. If a player reacts negatively in game situations, the coach must be subtle with criticism to produce desired results. The team looks to the coach not as a "cheerleader," but as a person who can give guidance and instill confidence in the team members' ability to play the game. The players should be given a quick explanation about what is going wrong and the alterations which will ameliorate the situation. Arguments should not be tolerated from a player or between players. The coach's responsibility is to maintain control of the team and the game plan. If, after changes are made, a player openly defies them, the player should be replaced with a teammate. It is better to have six players on the court playing as a team than to have one player doing what she/he thinks is correct.

When instructing players on changes to be made, the coach should be specific. For example, if an opposing server is acing the serve reception, the coach should instruct the team to overload the opponent's area of serve preference to try to force the player

to change her/his serving rhythm. Or, if the team is getting blocked and the position of the set is too close, the setter should be instructed to set farther from the net and higher to allow the hitters more time to go over the block or to use it. If the game plan calls for quick sets and the hitters are hitting into the block, the answer is higher, slower sets until the hitters are more successful.

However, a coach must be able to evaluate any situation at any time and adapt the game to give the team advice it can use immediately, not a training session on fundamentals. That should be saved for practice sessions.

A NON-WEIGHTROOM JUMP PROGRAM

GARY W. HUTSELL

Gary W. Hutsell earned his undergraduate degree from Eastern Washington State College, Cheney, and a M.Ed. from Eastern Washington University. He is currently teaching and coaching at Cheney High School. In four years as head coach, his girls volleyball team has compiled a 28-4 league record while making two consecutive trips to the State Tournament. He is also a State-rated NAGWS official and a Regional USVBA official.

The modern game of power volleyball now requires at all levels of competition players who can spike and block. A good vertical jump is definitely an asset. One of the major problems confronting many high school coaches and some college coaches in developing superior spiking or blocking is the inaccessibility of a weightroom where players can concentrate on working the muscles that will improve their vertical jump.

At Cheney High School the lack of a weightroom has been overcome by using apparatus and materials that are inexpensive, easy to make and readily obtainable in any community. The following is a brief description of the training aids employed and their use.

The first training aid simply requires a wall and a piece of chalk. The players are instructed to perform two drills. In the first drill, players do standing vertical jumps and try to touch two inches below their maximum jump reach. Players must bend the knees to 10 degrees on each jump. As the jump increases each month, players will raise the touch point accordingly. They execute three to five sets of 10 repetitions. In the second drill, players jump and touch two inches less than maximum for two minutes, rest one minute, then jump two minutes. They perform three to four sets. The muscular contraction in both exercises must be explosive. This combination of jumping exercises, used by the Cubans, is an excellent overload method which increases strength to the same extent as a weight program and provides jumping practice.

Skipping rope is a well-known exercise but it is not properly used to advantage. A few of the possibilities are: skipping on one leg, two legs, double jumps (two turns of the rope per jump), single jumps to maximum height using both legs at the same time (bending the legs as little as possible), and skipping continuously for five to six minutes at 150 revolutions per minute.*

The use of weight belts or vests, which this writer prefers to ankle weights, can be used in many drills, especially with the rope skipping exercises. They can be made inexpensively at home from corduroy, denim or any other heavy material that won't scratch the skin, possibly using a plastic lining. They can be filled with grain, bird seed, sand or small pebbles to a weight of 7-15 pounds. The belt part can be constructed of leather, plastic, macramé or canvas (Figure 1).

*For further information on rope skipping exercises, see Merv Mosher, "Skipping As a Conditioning Program," *Volleyball Technical Journal of the Canadian Volleyball Association*, vol. 4, no. 2: 1979, p. 37; and Hideo Doya, *Osaka University Program*, available by writing to the British Columbia Volleyball Association, 1200 Hornby Street, Vancouver, B.C., Canada V6Z 1W2.

Figure 1.

To provide a heavier weight, the "shadow" may be used. Obtain several different sizes of innertubes from a local gas station or tire dealer and next to the valve make a radial cut resulting in two open ends. Remove the valve to prevent possible injuries (Figure 2).

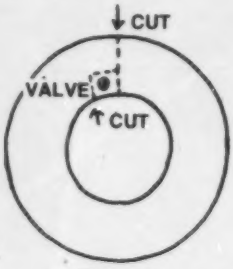

Figure 2.

Tie one end securely with rope, twine, etc. and add sand through the other end until you reach the desired weight; tie the end securely (Figure 3).

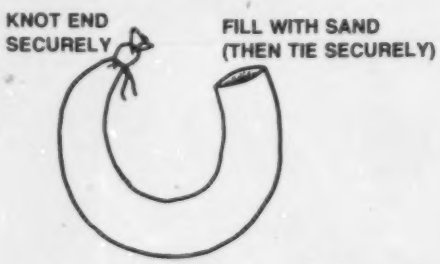

Figure 3.

Usually a range of shadows from 35-70 pounds is sufficient to provide a comfortable weight that fits snugly over the shoulders. Like a real shadow, it will stay right with you. The program at Cheney calls for half squat jumps with the equivalent of 30 to 50 percent of the player's body weight doing two sets of 25 and full squats using 50 percent of body weight starting with 20 repetitions and increasing gradually to 50. Rather than increasing the weights, it is preferable to increase the number of repetitions.

To develop the quadriceps, athletes can perform with the "board." This is a two-by four-inch piece of wood approximately 30 inches long with a towel wrapped around it to protect the floor from being scratched. It has been found to be an excellent tool and is an integral part of the program at Cheney. Players may not be as

enthusiastic as the coach; those at Cheney are definitely not. As the season progresses, the board is used less and less, while concentration is shifted to jumping drills with and without weights.

Depth jumping or rebound jumping was originally developed by the Russians to assist their triple jumpers to develop explosive power and lift. The equipment needed for this exercise is a series of boxes, benches or platforms in graduated heights from 6-30 inches. The player is to jump off the platform to a mat and immediately rebound up again in *one motion*. There should be no hesitation in the landing. This writer insists on players using a mat and absolutely no weights. At Cheney the progression calls for 8-12 days of jumping from a 12-inch platform to the mat up to a maximum possible jump; 7-10 days from the 18-inch platform up to a maximum jump; 7-10 days from the 12-inch platform up to 18-inch platforms; and 7-10 days from the 16-inch up to 16-inch platforms. Hopefully, near the end of the season some of the girls are jumping from 20-inch platforms up to 20-inch platforms. This exercise is done every other day with two sets of 15 repetitions. Using many combinations in a series is another alternative. For example, in one consecutive series of jumps — 6-inch platform to mat, rebounding to 12-inch platform; 12-inch platform to mat, rebounding to 16-inch platform; 16-inch platform to mat to 16-inch platform; 16-inch platform to mat to a maximum jump. Executed properly, this one exercise can bring immediate results. See Figure 4.

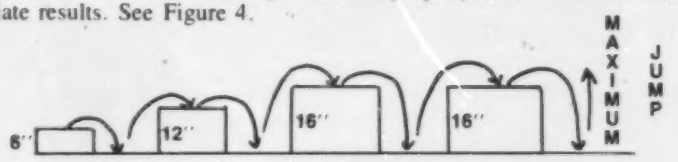

Figure 4.

Some apparatus should be selected which provides isokinetic exercise involving the legs, arms and shoulders. A drill can be designed with a shoulder harness that involves working the leg muscles and executing the correct spiking motion with the arm and shoulder. Many other drills and exercises can be used, too, such as bench blasts (step-ups) to a 16- to 20-inch bench, side jumping over an elastic rope, wall sits, leap frog, and various other running, skipping and hopping drills.

Certain drills are emphasized over others during the various seasons. The boards and shadows are used more at the beginning and middle of the season, introducing the isokinetic apparatus and depth jumping about three to four weeks into the season. Skipping rope can be done all season long, varying the drills often. It is the writer's opinion that the best exercise for improving players' vertical jump is jumping, with and without an approach, with or without moderate weight — the principle of specificity.

The results of the Cheney program have been rewarding. It has not been uncommon for a girl with no previous training to increase her standing vertical jump six inches in the 2½-month season. Some have experienced a rapid increase of three inches within three weeks. Some of these may be attributed to the learning of a proper jumping technique.

All players at Cheney follow the program, including those who specialize in backcourt play. The drills and exercises provide the strength and endurance necessary to play the low backcourt position for long periods without fatigue.

While these exercises and drills do not constitute a total physical conditioning program, the players achieve an increased vertical jump without the use of commercial weights or a weightroom.

OUT-OF-SEASON AEROBIC TRAINING

DIANA FORD

Diana Ford is currently in her third year as head volleyball coach at Miami University, Oxford, Ohio and serves as a physical education instructor at Wright State University, Fairborn, Ohio. She received her B.S. from Ohio State University and her M.S. from Illinois State University and has coached volleyball for 11 years at the high school, collegiate and USVBA levels. She is a Regional USVBA official and a registered high school Federation official.

You might already be saying, I thought volleyball was an anaerobic sport. So why aerobics? Exercise physiologists have indicated the need for a broad aerobic base in all sports activities, claiming that a broad cardiovascular base provides for a better anaerobic system.

Most high school female volleyball players are poorly prepared cardiovascularly because of short two-month seasons and the lack of emphasis on conditioning out-of-season. The collegiate coach, therefore, has the challenge of getting her players into shape in the most effective manner by helping each player to acquire proper body weight and percent body fat and enlarge the cardiovascular endurance foundation. With aerobic activities typically requiring the use of numerous muscle groups, a substantial number of calories are usually expended which can contribute to a decrease in body weight and percent body fat. Anaerobic programs can certainly meet all three important facets of getting into shape.

It should be understood that aerobics is not emphasized during the season or pre-season when transitional anaerobic activities will be the focus of training. It is suggested that aerobics be one phase of the total out-of-season program from January through May or June. The other phases could include weight training on the weight machine, free weights or isokinetic apparatus.

When selecting activities for an out-of-season program of five or six months, the coach has some important considerations. Will the athletes become mentally bored with the program? How can players be motivated to do the training alone without direct guidance from the coach? Kenneth H. Cooper, M.D., has designed a scientific aerobic program which solves these concerns. In his program, which is designed for both sexes, no matter what age or level of fitness, Cooper has determined the oxygen consumption of numerous activities and has assigned point values to the activities according to the intensity and duration of the sport. Dr. Cooper considers a woman to be in excellent condition if she can attain more than 40 points per week. In his book *The New Aerobics*, he suggests an athlete do at least 50 points per week during the off-season.

The following information about players was carefully considered when this writer was preparing to use Dr. Cooper's aerobic program for the team she was coaching.

- The members of the team were already in good to excellent physical condition from the season.
- The time required has to be realistic for the student/athletes with academic demands to meet.
- The players were involved in doing a mini-gym circuit three days per week requiring 1½ to 2 hours per week.
- The team had participated in two or three all-day USVBA tournaments per month and had practiced two hours, two days per week.

In view of the preceding considerations, the goal for the aerobic conditioning was

decided to be 50-80 points per week. The players had to do one or a combination of the following activities three days per week.

- Run two miles in 13 - 15:59 minutes. Points per day equalled 11 points.
- Cycle eight miles in 24 - 31:59 minutes on a 1- to 3-speed bicycle. Points per day equalled 10⅓ points.
- Swim 1,000 yards in 16:40 - 24:59 minutes while doing the front crawl. Points per day equalled 10½ points.

These activities were selected for the following reasons:

- The activities were in the maintenance program for people already in good to excellent condition as listed in Dr. Cooper's book.
- These activities would further develop leg muscles required for jumping.
- The players could now or in the near future accomplish these times and distances.
- The three activities were of comparable point values and needed to be done only three days weekly.

Numerous other sport activities could be done to complete the goal of 50 - 80 points per week. Two-hour practices were assigned six points instead of four per hour to allow for breaks in the players' participation. Many of the activities, however, were continuous movement drills to work on cardiovascular endurance. USVBA tournament participation received 8-12 points depending on the number of matches and amount of time an individual played. For a complete list of other activities, times and point values, consult Cooper's book. At the end of every three weeks, the players turned in charts to the coach. (See the chart of sample athlete's programs on page 68.)

The players liked their out-of-season conditioning this past year. The wide variety of activity allowed for individual preferences and changes in the weather. The athletes also enjoyed the challenge of trying to improve their times to earn more points. Because of the varied program, the students were encouraged to pursue other sports interests with teammates and other friends. This year enthusiasm for the out-of-season program replaced boredom.

In conclusion, aerobics is certainly an important aspect of year-round volleyball conditioning which should not be forgotten. It can be one part of a total out-of-season program and can give players that extra edge against their opponents. The programs can be used with players of any age or level of fitness. For further descriptions of Dr. Cooper's total program including the activities and point values, consult his books, *The New Aerobics* and *The Aerobics Way* (both available in paperback). Try aerobics. Out-of-season conditioning can be both fun and challenging to the serious volleyball player.

SAMPLE ATHLETE'S PROGRAMS

	Activity	(Continuous Activity) Time/Distance	Points/ Hour	Points/ Activity	Total Points/ Week
#1	Jogging	80 min./10 mi.		59	
		52 min./7 mi.		41	
		50 min./7 mi.		41	
	Jump Rope	15 min./10 min. (90-110 steps/min.)		6/4	
		10 min.		4	155
#2	Swimming	16 min./1,100 yds.		16-1/4	
	Ice Skating	1 hr.	4/hr.	4	
	Ice Skating	1 hr.	4/hr.	4	
	Practice	2 hrs.	3/hr.	6	
	Practice	2 hrs.	3/hr.	6	
	Volleyball Tournament			12	
	Running	15 min./2 mi.		11	63-1/4
#3	Racquetball	1 hr.	9/hr.	9	
	Swimming	23 min./1,100 yds.		12	
	Volleyball Practice	1 hr.	3/hr.	3	
	Volleyball Practice	2 hr.	3/hr.	6	
	Swimming	21 min./1,100 yds.		12	
	Volleyball Tournament			12	
	Squash	1 hr.	9/hr.	9	
	Swimming	21 min./1,100 yds.		12	75

VOLLEYBALL AUDIOVISUAL AIDS

Revised by DIANA FORD
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Note: Prices are subject to change.

Films

Continuous Movement Drills. Super 8mm, 25 min., silent, color. Rental $10. Bertha Lucas, USVBA Film Library, 5810 N. Kingsdale, Chicago, IL 60646. Chicago Rebels (women) and Kenneth Allen (men) volleyball teams demonstrate a continuous movement practice session. Arieh Selinger, Israeli international coach, conducts the practice, which includes a variety of 65 drills incorporating individual, partner, three player, six player and group patterns.

18 Patches. 16 mm., 27 min., color. Rental $35 plus handling. Purchase $275. Bryant - Ryan Productions, 621 1/2 Jasmine Ave., Corona Del Mar, CA 92625. Total collage of sand volleyball shot in its entirety at major tournaments.

Japan vs Russia. 8 mm., silent, color. Rental only. USVBA Films, P.O. Box 286, Huntington Beach, CA 92648. Olympic Women's Finals, Japan vs Russia.

The Illegal Hit in Volleyball (1971). 16 mm., 110 ft., silent, b & w. Sale $10. Jo Anne Thorpe, Southern Illinois Univ., Carbondale, IL 62901. Prepared by Jo Anne Thorpe and Virginia Gordon. Information sheet about use of film included.

This is Volleyball. 30 min., color. Sale $350. Available through USVBA Publications, P.O. Box 286, Huntington Beach, CA 92648. This is an instructional film of the Montreal Olympics.

USA vs Brazil. 16 mm., silent, color. Rental only. USVBA Films, P.O. Box 286, Huntington Beach, CA 92648. U.S. men's team vs Brazil.

USA vs Russia. 16 mm., 34 min., silent, color. Rental $12. Roger G. Burton, Midway YMCA, 1761 University Ave., St. Paul, MN 55104. Shows men's and women's match play between the USA and Russia.

Volleyball, A Sport Come of Age (1975). 16 mm., 23 min., color. Sale $320. Rental $35. Paramount Oxford Films, 5451 Marathon St. Hollywood, CA 90038. Reasons for skyrocketing popularity discussed by skilled players. Also available in Spanish. By Brian Lewis.

Volleyball - Dig It (1974). 16 mm., 13 min., color. Rental $7.50. Univ. of Southern California, Film Distribution Center, Division of Cinema, University Park, Los Angeles, CA 90007. Features Kathy Gregory, volleyball expert, who discusses skills of playing volleyball as demonstrated by a number of outstanding women players. Illustrated techniques of skillful serving, underhand pass, recovery from the net, the set up and the spike.

Volleyball for Intermediate Grades (1970). 16 mm., 24 min., sound, color. Sale $210. Rental $9 for first three days. University Educational Visual Art, 221 Park Ave. S., New York, NY 10003. Illustrates how a unit of volleyball is taught to children of varying levels of skill. Clearly demonstrates each skill. Emphasizes method and teaching involving total class participation.

Volleyball '76. 12 min., color. Available through USVBA Publications, P.O. Box 286, Huntington Beach, CA 92648. This promotional film shows both preliminary and final matches of the Montreal Olympics.

Volleyball Skills and Practice (1968). 16 mm., 12 min., sound, color. Sale $135. Film Associates, 2211 Michigan Ave., Santa Monica, CA 90404. Basic skills of

underhand volley, overhand volley, spike, net volley, overhand serve and underhand serve demonstrated by elementary school girls and boys in playground situation. Uses normal speed action. Practice period is shown.

World Championships (1970). Rental $12. G.R. McDonald, 5142 Tujunga Ave., North Hollywood, CA 91601. Films of 1970 world championships in Sophia, Bulgaria.

For current information on an assortment of instructional general purpose films, Super 8, 16 mm., color and b & w, contact: USVBA Films, P.O. Box 286, Huntington Beach, CA 92648.

Filmstrips, Loopfilms, Videotapes, Slides

Basic Skills Slide Series. Available through USVBA Publications, P.O. Box 286, Huntington Beach, CA 92648. Sixty-five action slides of world class players at the 1976 Montreal Olympics.

Beginning Volleyball. Four slide-film units in color. Sale only: silent, $36.70, sound (two 33 1/3 recordings) $42.30. Accompanying instructors' guide. Society for Visual Education, 1345 Diversey Parkway, Chicago, IL 60614.

UNIT I: The Game. Introduces game with a brief history and development of sport, court and equipment specifications, and a review of simple rules. demonstrating some playing fundamentals.

UNIT II: The Pass. Demonstrates the chest pass, dig pass, underhand pass, and fist recovery and stresses importance of directing ball well on the set pass.

UNIT III: The Serve. Presents underhand and overhand methods of serving the ball with description of the mechanics.

UNIT IV: The Attack. Spike presented as the attack in game play. Mechanics of the spike and examples of its strategic use in game play are demonstrated by men players.

National USBVA Championships (1971). Rental $25. Harold W. Buckner, YMCA, 737 E. 2nd St., Salt Lake City, UT 84102. Videotape of final matches showing one hour of men's play and one half hour of women's play. Suitable for programs, clinics or TV promotions. Two-inch videotape.

Power Volleyball. Super 8 or Kodak cartridges. Series of five loopfilms. The serve, the underhand pass, the set, the spike, and the Japanese roll — the block. $22.95 each. AAHPERD, 1201 16th St., N.W., Washington, DC 20036. Consultants are Jim Coleman, Harlan Cohen and John Lowell. Demonstrators are Pan American Games and US Olympic Volleyball Team Members.

Volleyball. Super 8 cartridges. Series of six loopfilms. Sale only $24.95 each, $49.70 per set. Ealing Corporation, 2225 Massachusetts Ave., Cambridge, MA 02140. Collegiate All-Americans demonstrate, providing comprehensive analysis of basic skills for either competitive or recreational volleyball. Slow motion analysis and freeze focus at critical learning periods.

Women's Power Volleyball. Super 8 or Kodak cartridges. Series of seven loopfilms; overhand floating serve — overhand spin serve, roundhouse floating serve, the forearm pass, the set-back set, the spike, the Japanese roll, the dive, single blocking — double blocking. $22.95 each. AAHPERD, 1201 16th St., N.W., Washington, DC 20036. Consultant is Jim Coleman. Demonstrators are: E Pluribus Unum Team Members, Houston, Texas, and 1973 AAU and USBVA National Women's Volleyball Champions.

Technique Charts

Pictorial Volleyball. A series of 26 8 1/2 x 11 photographs showing volleyball skills and positioning with printed descriptions of mechanics. Sale $1 per set with discounts on bulk orders of 10 or more. Creative Editorial Service, P.O. Box 2244, Hollywood, CA 90028. Black and white photographs present clear, sequential shots of a girl performing underhand serve, overhand serve, chest pass, dig pass, set-up spike and dink. Also five illustrations of girls' team play, including the position of readiness; the first, second, and third contact with the ball; and a successful spike. Pictures are suitable for bulletin board displays or as teaching aids for secondary level students.

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